DOCUMENT RESUME

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ABSTRACT

This document consists of 24 microcomputer software package evaluations prepared by the MicroSIFT (Microcomputer Software and Information for Teachers) Clearinghouse at the Northwest Regional Educational Laboratory. Each software review lists source, cost, ability level, subject, topic, medium of transfer, required hardware, required software, instructional purpose, instructional techniques, documentation available, instructional objectives (stated), instructional prerequisites (inferred), content and structure, estimated student time required, potential uses, major strengths, and major weaknesses. An evaluation summary rates packages on 21 criteria. The titles of the software packages evaluated are as follows: The Antonym Game; Arbplot; Biology: Energy and Life; Chambers of Vocab; Compu-Math: Fractions; Decimals; Division Skills; Electronic Blackboard Series: Function Plotter and Trigonometry; The Electronic Study Guide: Equations and Inequalities; Exponential and Logarithmic Functions; Functions; and Fundamental Concepts of Algebra; and Polynomial Functions, Rational Functions, and Conic Sections); Graphing Equations; Mathwiz; The Money Manager; Punctuation Skills (Commas; and End Marks, Semicolon and Colon); Rainbow Graphics; Spelling Wiz; Subtracting Mixed Fractions; Vocabulary I, Plurals, Sentences/Tell Me; and Word Radar. Cumulative subject and title indexes to the first 10 sets of evaluations are attached. (LMM)

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MicroSIFT Courseware Evaluations (199-222).
Set 10. Including Subject and Title Indexes
Covering Sets 1-10.

The Antonym Game

Arbplot

Biology: Energy and Life

Chambers of Vocab

Compu-Math: Fractions

Decimals

Division Skills

Electronic Blackboard Series: Function Plotter
Trigonometry

The Electronic Study Guide: Equations and Inequalities
Exponential and Logarithmic Functions
Functions
Fundamental Concepts of Algebra
Polynomial Functions, Rational Functions, and Conic Sections

Graphing Equations

Mathwiz

The Money Manager

Punctuation Skills: Commas
End Marks, Semicolon and Colon

Rainbow Graphics

Spelling Wiz

Subtracting Mixed Fractions

Vocabulary I, Plurals, Sentences/Tell Me

Word Radar

MicroSIFT Evaluations: Subject Set 1-10

MicroSIFT Evaluations: Title Set 1-10

IR011156

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The Antonym Game

VERSION: 1983

PRODUCER: J & S Software
140 Reid Avenue
Port Washington, NY 11050

EVALUATION COMPLETED: January 1984 by the staff and constituents of Florida Department of Education, Tallahassee, Florida.

COST: $29.95

ABILITY LEVEL: Grades 9 through postsecondary
SUBJECT: Language Arts
TOPIC: Vocabulary
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: Apple II, disk drive, monitor
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Remediation, standard instruction
INSTRUCTIONAL TECHNIQUES: Drill and practice, game

DOCUMENTATION AVAILABLE: In program - program operating instructions, teacher's information, student's instructions. In supplementary material - suggested grade/ability level(s), program operating instructions, teacher's information.

INSTRUCTIONAL OBJECTIVES: (INFERRED) To improve students vocabulary and increase understanding of antonyms.

INSTRUCTIONAL PREREQUISITES: (INFERRED) The ability to read at high school level, and prior instruction in use of antonyms.

CONTENT AND STRUCTURE: The package consists of one diskette and a booklet. The player is given a choice of automobile racing games. The student can play a game based on easy, hard, or very hard words selected randomly from a pool of 600 words. The game progresses with the student choosing antonyms for words displayed by the computer in order to advance an automobile around a race track. Teachers have access through use of a password to a special set of routines enabling them to delete student scores from the computer maintained list of high scores, to list all words in the program and to change any of the words and the choices of antonyms.

ESTIMATED STUDENT TIME REQUIRED: Would vary according to individual need and ability.

POTENTIAL USES: This vocabulary skill building program can be used effectively in an individual or small group setting with little or no teacher supervision.

Continued on back

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
	•				Content has educational value.
•					Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
		•			Student creativity is effectively stimulated.
•					Feedback is effectively employed.

SA	A	D	SD	NA	
•					Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
•					Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 5 (High) to 1 (Low).
Content - 4, Instructional Characteristics - 4, Technical Characteristics - 4.

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The Antonym Game, continued

MAJOR STRENGTHS: The package provides positive reinforcement, error trapping, and words which are appropriate for the targeted grade levels. Good graphics are used. Students need minimal instructions to operate.

MAJOR WEAKNESSES: Any combination of the keys 1-9 can be used although only 4 choices are given. A playful student may discover that he/she can move the cursor around the screen, printing characters and scrolling up the text by using the arrow keys. There is no sound or color. In order to get into the teacher routines, one must type the password "TEACHER" in caps, this point is not made clear in the documentation.

OTHER COMMENTS: Pronunciation clues would increase the educational value of this program.

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Arbplot

PRODUCER: Conduit
The University of Iowa
Oakdale Campus
Iowa City, IA 52242

EVALUATION COMPLETED: February 1984 by the staff and constituents of Oakland ISD, Pontiac, Michigan.

COST: $125.00

ABILITY LEVEL: Grades 11 through postsecondary
SUBJECT: Mathematics
TOPIC: Algebra, Calculus
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II, one disk drive, monitor (large demonstration)
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Standard instruction
INSTRUCTIONAL TECHNIQUES: Authoring, demonstration

DOCUMENTATION AVAILABLE: In program — sample program output, program operating instructions. In supplementary material — suggested grade/ability level(s), sample program output, program operating instructions, teacher's information, follow-up activities.

INSTRUCTIONAL OBJECTIVES: To provide a means to quickly demonstrate the graphs of various mathematical functions, and relations. To provide a means to graphically demonstrate various concepts in calculus.

INSTRUCTIONAL PREREQUISITES: (STATED) The ability to describe mathematical functions in the way Applesoft Basic requires. This is covered in Section 2.4 of the manual.

CONTENT AND STRUCTURE: Arbplot is a collection of three groups of graphics programs designed to help the instructor teach calculus and other mathematics subjects. The first group plots curves from functions defined in several ways. The second illustrates concepts in calculus, and the third, creates and runs slide shows to aid presentations of preplanned sequences of graphic illustrations. The programs are on two diskettes. The manual first describes each program and shows how to use the alternatives within it. The manual then presents tactics for using the programs in various classroom situations, including planning and showing slide shows. Next, thirty classroom applications are presented. Finally, technical notes are given on the design and listing of each program.

ESTIMATED STUDENT TIME REQUIRED: 30 minutes to 2 hours.

POTENTIAL USES: The package could be used for reinforcement of concepts after teacher presentation.

MAJOR STRENGTHS: The package treats a wide variety of calculus subjects, with especially good graphics on derivative/max/min section, and the definite and indefinite integrals section (I really liked seeing the Simpson's Rule parabolas drawn out). The ability to print any of the results on paper large enough to show a class is a good point. The package motivates students to generalize and study further.

MAJOR WEAKNESSES: None stated.

OTHER COMMENTS: Boy was this fun! I couldn't keep my Calculus II students away from it.

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
•					Content is free of stereotypes.
•					Purpose of package is well defined.
•					Package achieves defined purpose.
•					Content presentation is clear and logical.
•					Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
	•				Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
•					Instruction integrates with prior learning.
	•				Learning can be generalized.
•					User support materials are comprehensive.
•					User support materials are effective.
•					Information displays are effective.
	•				Users can operate easily and independently.
•					Teachers can employ package easily.
•					Computer capabilities are used appropriately.
•					Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would highly recommend this package.

Summary: Scale from 5 (High) to 1 (Low).
Content - 5, Instructional Characteristics - 4, Technical Characteristics - 5.

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Biology: Energy and Life

PRODUCER: Encyclopedia Brittanica Educational Corporation
425 N. Michigan Avenue
Chicago, IL 60611

EVALUATION COMPLETED: March 1984 by the staff and constituents of PREPS, Mississippi State University, Mississippi.

COST: $133.00

ABILITY LEVEL: Grades 10 through 12
SUBJECT: Science
TOPIC: Biology
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II, one disk drive, monitor
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Standard instruction, enrichment, assessment.
INSTRUCTIONAL TECHNIQUES: Drill and practice, tutorial

DOCUMENTATION AVAILABLE: In program - post-test, student's instructions. In supplementary material - instructional objectives, program operating instructions, teacher's information, student worksheets.

INSTRUCTIONAL OBJECTIVES: (STATED) To develop basic knowledge in the areas of energy sources, energy pyramids, chemical pathways and aerobic and anaerobic respiration.

INSTRUCTIONAL PREREQUISITES: (INFERRED) Lessons are presented sequentially and completion of one is the prerequisite for the next.

CONTENT AND STRUCTURE: Disk 1: The tutorial is menu-directed and includes: a) an overview of the significance of biological energy forms, transfer, and metabolism, b) an introduction to basic chemical ideas; the elementary concepts of atoms, chemical bonds, molecules, and polymers, c) graphic illustrations of the changes in free energy associated with chemical reactions, d) examination of change in free energy between reactants and products; energy yield of a reaction in terms of changes in free energy; energy barriers and activation energy; the role of enzymes in changing activation energy, e) a simple explanation of energy storage, transfer, and release in organisms, f) an introduction to concepts of energy storage in carbohydrates, fats, and proteins; oxidation and reduction; the role of NAD and NADP; the role of ATP; and elementary carbohydrate metabolism, g) for more advanced students, a presentation of the metabolism of glucose, showing glycolosis and the Krebs cycle, with aerobic and anaerobic respiration, h) moving graphics of metabolic

Continued on back

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
•					Content is free of stereotypes.
•					Purpose of package is well defined.
•					Package achieves defined purpose.
•					Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
	•				Student creativity is effectively stimulated.
•					Feedback is effectively employed.

SA	A	D	SD	NA	
•					Learner controls rate and sequence.
•					Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
•					Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 5 (High) to 1 (Low).
Content - 4, Instructional Characteristics - 4, Technical Characteristics - 4.

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Biology: Energy and Life, continued

pathways, showing intermediates and an "energy accounting" or score of net energy produced at each intermediate, i) concept reviews.

Disk 2: The glossary-and-drill disk is divided into two sections: a) a glossary that provides definitions and a review of terms used in the tutorial disk, and b) three menu-directed self-test series comprised of multiple-choice, fill-in, and column-matching exercises.

There are two distinct scoring systems: immediate score where the student is immediately told whether an answer is right or wrong, and delayed scoring where, as in a classroom quiz, the cumulative score is given after the quiz is completed. In all three self-test series and in both scoring methods, students may request correct answers.

ESTIMATED STUDENT TIME REQUIRED: 1 hour

POTENTIAL USES: For enrichment — as a supplement to textbook materials.

MAJOR STRENGTHS: The package makes good use of color, graphics, and motion in order to easily gain the attention of the students. The directions are easy to follow.

MAJOR WEAKNESSES: The package requires the student to type in lengthy words from memory. The material is a little difficult for students who have had no high school level science courses.

OTHER COMMENTS: Sound might be added to draw students attention to incorrect responses.

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Chambers of Vocab

PRODUCER: Reader's Digest Services, Inc.
Microcomputer Software Division
Pleasantville, NY 10570

EVALUATION COMPLETED: January 1984 by the staff and constituents of Florida Department of Education, Tallahassee, Florida.

COST: $39.95

ABILITY LEVEL: Grades 4 through 12
SUBJECT: Language Arts
TOPIC: Vocabulary
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II/II plus/IIe, single disk drive, monitor (color preferred).
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Remediation, standard instruction, enrichment
INSTRUCTIONAL TECHNIQUES: Drill and practice, game

DOCUMENTATION AVAILABLE: In program — program operating instructions, teacher's information, student's instructions. In supplementary materials — suggeted grade/ability level(s), instructional objectives, program operating instructions, student's instructions.

INSTRUCTIONAL OBJECTIVES: (STATED) To increase vocabulary.

INSTRUCTIONAL PREREQUISITES: None stated.

CONTENT AND STRUCTURE: The package consists of one diskette and a manual. Chambers of Vocab is a maze game, designed to improve vocabulary, which includes the following functions: Word Builder, a built-in dictionary with 300 words organized by level of difficulty with one definition provided per word; Instruct, complete animated instructions on how to play the game; Choose, allows you to choose, by level of difficulty, the list of words to appear in the game; Warm-Up, a program which lets you preview and study words before you encounter them in the game; Recap, helps you study words missed in the game; and Edit allows you to add to the dictionary.

ESTIMATED STUDENT TIME REQUIRED: Approximately 4 hours per month throughout the school year.

POTENTIAL USES: A unique and challenging game for two to four players to increase vocabulary skills.

MAJOR STRENGTHS: The program takes advantage of graphics to capture the students interest. The arrangement of the text and letter size increases the programs readability. Instructions are easy to follow and the teacher can add words to the dictionary. The words are organized by levels of difficulty.

MAJOR WEAKNESSES: The documentation does not explain how the teacher can gain access to the vocabulary list, how power points are determined or how to begin a game with a new group of students. The learner must ask for feedback.

OTHER COMMENTS: A joystick would be a very good addition.

EVALUATION SUMMARY

SA	A	D	SD	NA	
	•				Content is accurate.
	•				Content has educational value.
•					Content is free of stereotypes.
•					Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
•					Use of package is motivational.
	•				Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
		•			User support materials are comprehensive.
		•			User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 5 (High) to 1 (Low).
Content - 5, Instructional Characteristics - 4, Technical Characteristics - 3.

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Compu-Math: Fractions

VERSION: Apple

PRODUCER: Edu-Ware Services
28035 Dorothy Drive
P.O. Box 22222
Agoura, CA 91301

EVALUATION COMPLETED: March 1984 by the staff and constituents of West Lafayette School Corporation, West Lafayette, Indiana.

COST: $49.00

ABILITY LEVEL: Grades 6-12
SUBJECT: Mathematics
TOPIC: Fractions, Decimals
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple, single disk drive, monitor; 48K Atari single disk drive, monitor
REQUIRED SOFTWARE: Applesoft, DOS 3.3 for Apple; BASIC for Atari
INSTRUCTIONAL PURPOSE: remediation, assessment
INSTRUCTIONAL TECHNIQUES: drill and practice, tutorial

DOCUMENTATION AVAILABLE: In program — instructional objectives, pre/post test, student instructions. In supplementary materials — program operating instructions, teacher's information, instructional objectives.

INSTRUCTIONAL OBJECTIVES: (STATED) Subtraction of fractions from fractions, fractions from whole numbers, and fractions from mixed numbers. Long term skill maintenance is an objective.

INSTRUCTIONAL PREREQUISITES: (INFERRED) Sixth-seventh grade reading level and arithmetic manipulations of integers.

CONTENT AND STRUCTURE: The diskette contains a master menu which allows the teacher to tailor instruction for learners by selecting specific learning units for learner, and to set program so that pretest scores determine which units will be available. Six units include definitions, denominators, addition, subtraction, multiplication, and division. A pamphlet contains easy to read instructions.

ESTIMATED STUDENT TIME REQUIRED: One hour, at least, per lesson is needed.

POTENTIAL USES: The program could be used in an enrichment setting for large group; set the number of questions to ten or less using the management feature. There is a possibility for use with accelerated students.

MAJOR STRENGTHS: This program is teacher-managed and well documentated. The displays are comprehensive and accurate.

MAJOR WEAKNESSES: Some responses require you to type a return, some don't. It is too wordy for remediation and the program takes too much time. The program lacks motivation prompts. Typing of some entries is confusing.

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
•					Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
		•			Use of package is motivational.
			•		Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
•					Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
•					Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 5 (High) to 1 (Low).
Content - 4, Instructional Characteristics - 4, Technical Characteristics - 5.

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Decimals

VERSION: Apple

PRODUCER: QED, Inc.
P.O. Box 12456
Portland, OR 97212-0486

EVALUATION COMPLETED: February 1984 by the staff and constituents of Lehigh University, Bethlehem, Pennsylvania.

COST: $120.00

ABILITY LEVEL: Grades 5 through 9
SUBJECT: Mathematics
TOPIC: Arithmetic
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II plus, single disk drive, monitor. Also available for TRS-80 Model III and 4, Commodore PET, and Commodore 64 (July 1984).
REQUIRED SOFTWARE: Applesoft for Apple version
INSTRUCTIONAL PURPOSE: Standard instruction
INSTRUCTIONAL TECHNIQUES: Tutorial, game

DOCUMENTATION AVAILABLE: In program — post-test, student's instructions. In supplementary materials — suggested grade/ability level(s), instructional objectives, prerequisite skills or activities, program operating instructions, teacher's information, student record forms.

INSTRUCTIONAL OBJECTIVES: (STATED) To develop an understanding of the concepts in decimal arithmetic.

INSTRUCTIONAL PREREQUISITES: (STATED) Fifth or sixth grade reading level, experience with word problems involving money, and some experience with adding and subtracting decimals.

CONTENT AND STRUCTURE: This package consists of four disks containing eight topics concerning decimal arithmetic. Each topic contains two programs. The "A" program presents an interactive inquiry of the topic, an opportunity for the student to give the computer problems, and a turn to solve problems given by the computer. The first seven "B" programs are enrichment extensions, often a game, of the concepts presented in the "A" program. The final "B" program is a review test for the entire series.

ESTIMATED STUDENT TIME REQUIRED: At least one period per day for two weeks.

POTENTIAL USES: This program could be used for review of basic decimal concepts, or it might be used for "fun" by students who know the basics (especially the "B" games). Since the package extends the treatment of decimals to include applications, it would be particularly useful in science classes.

MAJOR STRENGTHS: The computer gives the student an opportunity to make up problems. The activities are organized into short segments. Some evidence of mastery of a skill is requested before the program continues. The "B" games stretched the mind and are an excellent feature.

Continued on back

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
•					Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
	•				Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
•					Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
•					Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 5 (High) to 1 (Low).
Content - 4, Instructional Characteristics - 4, Technical Characteristics - 4.

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Decimals (continued)

MAJOR WEAKNESSES: The program assumes some level of understanding of the concepts at the outset and therefore would be difficult to use to introduce decimal work. The instructions did not seem clear to students.

OTHER COMMENTS: The "A" programs are tutorial in nature and most appropriate for use with individual students. The "B" programs are games that may involve from 2 to 4 players. The teacher must plan accordingly taking into account these different computer/student ratios to avoid classroom disruption.

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Division Skills

VERSION: Apple II

PRODUCER: Milton-Bradley Company
Educational Division
443 Shaker Road
East Longmeadow, MA 01028

EVALUATION COMPLETED: June 1983 by the staff and constituents of Region IV ESC, Houston, Texas.

COST: $44.95

ABILITY LEVEL: Grades 5 through 8
SUBJECT: Mathematics
TOPIC: Arithmetic
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II plus, single disk drive, monitor
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Remediation, standard instruction, enrichment, assessment, instructional management.
INSTRUCTIONAL TECHNIQUES: Drill and practice, tutorial, game.

DOCUMENTATION AVAILABLE: In program — sample program output, program operating instructions, post-test, teacher's information, student's instructions. In supplementary materials — suggested grade/ability level(s), instructional objectives, prerequisite skills or activities, program operating instructions, post-test, teacher's information, resource/reference information, student's instructions, student worksheets, follow-up activities.

INSTRUCTIONAL OBJECTIVES: (INFERRED) The students will compute division problems using low digit divisors, whole number remainders, fractional remainders, and decimal remainders.

INSTRUCTIONAL PREREQUISITES: (INFERRED) Students practice skills taught prior to use of the package.

CONTENT AND STRUCTURE: Consists of one diskette, reproducible worksheets and tests, and an accompanying manual. General design is: instruction, practice, and mastery quiz. Includes teacher management record keeping system which allows for individual placement.

ESTIMATED STUDENT TIME REQUIRED: 15 minutes per day

POTENTIAL USES: The package could be used for individual practice on division already taught in classroom environment.

MAJOR STRENGTHS: The package is user friendly, easy to follow, and motivational. Reinforcement is given immediately and a variety of words are used to show praise. The program remediates for incorrect responses. The degree of difficulty is increased at a good rate. The record keeping feature is good.

MAJOR WEAKNESSES: The documentation for the record keeping feature could be simpler.

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
•					Content is free of stereotypes.
•					Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
•					Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
		•			Student creativity is effectively stimulated.
•					Feedback is effectively employed.

SA	A	D	SD	NA	
•					Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
•					Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would highly recommend this package.

Summary: Scale from 5 (High) to 1 (Low).
Content - 5, Instructional Characteristics - 5, Technical Characteristics - 4.

Northwest Regional Educational Laboratory
300 S.W. Sixth Avenue • Portland, Oregon 97204
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This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

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Electronic Blackboard Series: Function Plotter

PRODUCER: Wadsworth Electronic Publishing Co.
10 Davis Drive
Belmont, CA 94002

EVALUATION COMPLETED: February 1984 by the staff and constituents of Oakland ISD, Pontiac, Michigan.

COST: $50.00; $300.00 for entire series of three packages

ABILITY LEVEL: Grade 10 through postsecondary
SUBJECT: Mathematics
TOPIC: Algebra, Trigonometry, Analytic Geometry
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II Plus, one disk drive, monitor (color recommended)
REQUIRED SOFTWARE: Applesoft
INSTRUCTIONAL PURPOSE: Standard instruction
INSTRUCTIONAL TECHNIQUES: Game, demonstration

DOCUMENTATION AVAILABLE: In supplementary material — suggested grade/ability level(s), sample program output, program operating instructions, resource/reference information, student's instructions.

INSTRUCTIONAL OBJECTIVES: (INFERRED)
To provide a demonstration tool for the teacher to illustrate geometric concepts in algebra.

INSTRUCTIONAL PREREQUISITES: (INFERRED)
An appropriate background in mathematics to be able to demonstrate the various functions.

CONTENT AND STRUCTURE: This package is the third of three packages in a series. It includes one disk and documentation containing the programs: Function Plotter, Function Symmetries, and Carroll Critters. The first two allow the user to demonstrate the graph of various functions. The third, Carroll Critters is a game where points are scored by entering functions whose graph passes through the "critters".

ESTIMATED STUDENT TIME REQUIRED: 10-15 class periods interspersed over a period of time.

POTENTIAL USES: The package could be used to introduce and explore each type of function as it is studied in the regular class sequence. Either classroom demonstration of functions and graphing functions or small group practice of these skills are possible uses of the package.

MAJOR STRENGTHS: The ability to vary many parameters at will, and the opportunity to explore many functions easily are strong points of the package. Visual feedback is relatively rapid. The screens are attractive and the package is easy to use. The game portion introduces a competitive element which is motivating.

MAJOR WEAKNESSES: What one evaluator got looked more like a distorted sine curve. A lot of preparation is needed prior to implementation - i.e., too much to read in instruction book for the total value of program. The Apple II Hi-Res screen is inadequate for some functions.

OTHER COMMENTS: Almost any student of elementary functions should find using this disk to be fun and a highly exciting way of learning. The package seems to be more of a teacher utility than a student tutorial. Due to the limited dot resolution of the Apple computer, the graphs of certain functions will not be a true representation for example: in the Carroll Critters mode, the tangent function appears not to graph correctly.

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
•					Content is free of stereotypes.
	•				Purpose of package is well defined.
•					Package achieves defined purpose.
				•	Content presentation is clear and logical.
•					Difficulty level is appropriate to audience.
•					Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
	•				Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
•					Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
•					Information displays are effective.
	•				Users can operate easily and independently.
•					Teachers can employ package easily.
•					Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would highly recommend this package.

Summary: Scale from 5 (High) to 1 (Low).
Content - 5, Instructional Characteristics - 4, Technical Characteristics - 4.

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This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

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Electronic Blackboard Series: Trigonometry

PRODUCER: Wadsworth Electronic Publishing Co.
10 Davis Drive
Belmont, CA 94002

EVALUATION COMPLETED: February 1984 by the staff and constituents of Oakland ISD, Pontiac, Michigan.

COST: $75.00; $300.00 for the entire series of three packages

ABILITY LEVEL: Grades 10 through postsecondary
SUBJECT: Mathematics
TOPIC: Trigonometry
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II Plus, one disk drive, monitor (color recommended)
REQUIRED SOFTWARE: Applesoft
INSTRUCTIONAL PURPOSE: Standard instruction
INSTRUCTIONAL TECHNIQUES: Demonstration

DOCUMENTATION AVAILABLE: In supplementary material — suggested grade/ability level(s), sample program output, program operating instructions, resource/reference information, student's instructions.

INSTRUCTIONAL OBJECTIVES: (INFERRED)
To provide a demonstration tool for the teacher to illustrate geometric concepts in trigonometry.

INSTRUCTIONAL PREREQUISITES: (INFERRED)
An appropriate background in mathematics to be able to demonstrate the various functions.

CONTENT AND STRUCTURE: This package is the second of three packages in a series. It includes two disks and documentation which contains: the wrapping function, special angles-memory device, special angles-reference angles, not so special angles, trignometric functions, varying parameters, and various trigonometric concepts.

ESTIMATED STUDENT TIME REQUIRED: 15-30 minutes/day when relevant to classroom topics.

POTENTIAL USES: The package, when used in the interactive mode, is useful as a demonstration tool, as well as for student discovery and experimentation. The target mode allows practice of skills for individual students. The package could be used to supplement classwork in high school and college trigonometry classes.

Continued on back

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
•					Content is free of stereotypes.
•					Purpose of package is well defined.
•					Package achieves defined purpose.
				•	Content presentation is clear and logical.
•					Difficulty level is appropriate to audience.
•					Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
		•			Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
•					Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
•					Information displays are effective.
	•				Users can operate easily and independently.
•					Teachers can employ package easily.
•					Computer capabilities are used appropriately.
•					Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 5 (High) to 1 (Low).
Content - 4, Instructional Characteristics - 4, Technical Characteristics - 4.

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This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

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Electronic Blackboard Series: Trigonometry
(continued)

MAJOR STRENGTHS: The package is versatile and easy to use. The graphing functions, in particular, are easy to use. Graphics and color are used effectively. The interactive and target modes, when available, are strong points.

MAJOR WEAKNESSES: The program is relatively slow in speed, particularly in some of the display modes. Even the interactive and target modes aren't very useful for the wrapping function — just witnessing what happens for a few values suffices. The relationships among trigonometric functions could be shown just as effectively with an overhead projector and a good set of colorful and well-drawn overlays. Special angles can also be demonstrated in class equally rapidly and as clearly, using the chalkboard. Point resolution of Apple Hi-Res screen is somewhat limited to produce truly good graphs of trig functions.

OTHER COMMENTS: One evaluator stated "Even with the best modules the general effect for me is working through a rather dull task. If it isn't motivating for me it's not likely to be for students." Support materials for students or classroom would be a nice addition! The control structure is consistent with other products in the Electronic Blackboard Series so that it is easy to make use of additional available programs. It requires some time and effort to thoroughly learn how to use this package. The more time spent yields more possible applications.

This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

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The Electronic Study Guide: Equations and Inequalities

PRODUCER: Wadsworth Electronic Publishing Company.
10 Davis Drive
Belmont, CA 94002

EVALUATION COMPLETED: February 1984 by the staff and constituents of Oakland ISD, Pontiac, Michigan.

COST: $49.95; $275.00 for entire series of six packages

ABILITY LEVEL: Grade 11 through postsecondary
SUBJECT: Mathematics
TOPIC: Algebra
MEDIUM OF TRANSFER: 5-1/4 in disk
REQUIRED HARDWARE: 48K Apple II family, one disk drive, monitor (color recommended)
REQUIRED SOFTWARE: Applesoft
INSTRUCTIONAL PURPOSE: Standard instruction
INSTRUCTIONAL TECHNIQUES: Drill and practice, tutorial

DOCUMENTATION AVAILABLE: In programs — instructional objectives, program operating instructions, post-test, student's instructions. In supplementary material — sample program output, program operating instructions student's instructions.

INSTRUCTIONAL OBJECTIVES: (INFERRED)
To provide supplemental instruction and drill on various concepts in algebra.

INSTRUCTIONAL PREREQUISITES: (INFERRED)
Prior instruction on the concepts covered in this package.

CONTENT AND STRUCTURE: This package is one in a series of six packages designed to supplement an algebra curriculum. Each package contains between 5 and 10 sections detailing various topics and 40 to 60 questions. The problems selected represent varying degrees of difficulty. Each section concludes with a self checking quiz. Topics covered in this package are: linear equations, applications, quadratic equations, miscellaneous equations, and more on inequalities.

ESTIMATED STUDENT TIME REQUIRED: Total of 3 hours.

POTENTIAL USES: The package could be used for small group (1-3 students) practice, large group review, or supplement to teacher lecture.

MAJOR STRENGTHS: The directions provided the user are clear and concise and the program is very easy to use. A wide variety of topics are discussed and reviewed in a very short period of time. This program can be effectively used by a student wishing to review the algebraic skills included.

MAJOR WEAKNESSES: The package is shallow - not much depth of coverage of the topics. The package is dull to work with - i.e., question/answer format. A programmed workbook would be just as effective.

EVALUATION SUMMARY

SA	A	D	SD	NA	
	•				Content is accurate.
	•				Content has educational value.
•					Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
		•			Use of package is motivational.
		•			Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
		•			Learning can be generalized.
		•			User support materials are comprehensive.
		•			User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package only if certain changes were made.

Summary: Scale from 5 (High) to 1 (Low).
Content - 3, Instructional Characteristics - 3, Technical Characteristics - 3.

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This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

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The Electronic Study Guide: Exponential and Logarithmic Functions

PRODUCER: Wadsworth Electronic Publishing Co.
10 Davis Drive
Belmont, CA 94002

EVALUATION COMPLETED: February 1984 by the staff and constituents of Oakland ISD, Pontiac, Michigan.

COST: $49.95; $275.00 for entire series of six packages

ABILITY LEVEL: Grades 11 through postsecondary
SUBJECT: Mathematics
TOPIC: Algebra
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II family, one disk drive, monitor (color recommended)
REQUIRED SOFTWARE: Applesoft
INSTRUCTIONAL PURPOSE: Standard instruction
INSTRUCTIONAL TECHNIQUES: Drill and practice, tutorial

DOCUMENTATION AVAILABLE: In program — instructional objectives, program operating instructions, post-test, student's instructions. In supplementary material — sample program output, program operating instructions, student's instructions.

INSTRUCTIONAL OBJECTIVES: (INFERRED) To provide supplemental instruction and drill on various concepts in algebra.

INSTRUCTIONAL PREREQUISITES: (INFERRED) Prior instruction on the concepts covered in this package.

CONTENT AND STRUCTURE: This package is one in a series of six packages designed to supplement an algebra curriculum. Each package contains between 5 and 10 sections detailing various topics and 40 to 60 questions. The problems selected represent varying degrees of difficulty. Each section concludes with a self-checking quiz. Topics covered in this package are: exponential functions, logarithms, logarithmic functions, common logarithms, exponential and functions, linear interpolation, and computation with logarithms.

ESTIMATED STUDENT TIME REQUIRED: Total of three hours

POTENTIAL USES: The package could be used for small group (1-3 students) practice, large group review, or as a supplement to teacher lecture.

MAJOR STRENGTHS: The package is concise and easy to us. The graphics and examples are well done.

MAJOR WEAKNESSES: The coverage of the topic is shallow. More examples to be worked by the student are needed. Allowance should be made for more input flexibility. Addition of the ability to observe graph changes would be a plus.

OTHER COMMENTS: The package is dull to use. A programmed workbook would be just as effective.

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
•					Content is free of stereotypes.
•					Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
		•			Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
•					Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 5 (High) to 1 (Low).
Content - 4, Instructional Characteristics - 4, Technical Characteristics - 4.

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This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

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The Electronic Study Guide: Functions

PRODUCER: Wadsworth Electronic Publishing Co.
10 Davis Drive
Belmont, CA 94002

EVALUATION COMPLETED: February, 1984 by the staff and constituents of Oakland ISD, Pontiac, Michigan.

COST: $49.95; $275.00 for entire series of six packages

ABILITY LEVEL: Grades 11 through postsecondary
SUBJECT: Mathematics
TOPIC: Algebra
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II family, one disk drive, monitor (color recommended)
REQUIRED SOFTWARE: Applesoft
INSTRUCTIONAL PURPOSE: Standard instruction
INSTRUCTIONAL TECHNIQUES: Drill and practice, tutorial

DOCUMENTATION AVAILABLE: In program — instructional objectives, program operating instructions, post-test, student's instructions. In supplementary material — sample program output, program operating instructions, student's instructions

INSTRUCTIONAL OBJECTIVES: (INFERRED) To provide supplemental instruction and drill on various concepts in algebra.

INSTRUCTIONAL PREREQUISITES: (INFERRED) Prior instruction on the concepts covered in this package.

CONTENT AND STRUCTURE: This package is one in a series of six packages designed to supplement an algebra curriculum. Each package contains between 5 and 10 sections detailing various topics and 40 to 60 questions. The problems selected represent varying degrees of difficulty. Each section concludes with a self-checking quiz. Topics covered in this package are: coordinate systems in two dimensions, graphs, definition of functions, graphs of functions, linear functions, composite and inverse functions, and variation.

ESTIMATED STUDENT TIME REQUIRED: Total of 3 hours

POTENTIAL USES: This package would be most useful as a reviewing aid. It could be used for large group review or to supplement teacher lecture. It could also be used for small group (1-3 students) practice on the concepts.

MAJOR STRENGTHS: The package is concise and easy to use.

MAJOR WEAKNESSES: The topic is covered in a shallow manner. There are not enough examples used to benefit mastery.

OTHER COMMENTS: The package is dull to use. A programmed workbook would be just as effective.

EVALUATION SUMMARY

SA	A	D	SD	NA	
	•				Content is accurate.
	•				Content has educational value.
•					Content is free of stereotypes.
•					Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
		•			Use of package is motivational.
		•			Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
		•			User support materials are comprehensive.
		•			User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
		•			Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 5 (High) to 1 (Low).
Content - 4, Instructional Characteristics - 4, Technical Characteristics - 4.

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This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

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The Electronic Study Guide: Fundamental Concepts of Algebra

PRODUCER: Wadsworth Electronic Publishing Co.
10 Davis Drive
Belmont, CA 94002

EVALUATION COMPLETED: February 1984 by the staff and constituents of Oakland ISD, Pontiac, Michigan.

COST: $49.95; $275.00 for entire series of six packages

ABILITY LEVEL: Grade 11 through postsecondary
SUBJECT: Mathematics
TOPIC: Algebra
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II family, one disk drive, monitor (color recommended).
REQUIRED SOFTWARE: Applesoft
INSTRUCTIONAL PURPOSE: Standard instruction
INSTRUCTIONAL TECHNIQUES: Drill and practice, tutorial

DOCUMENTATION AVAILABLE: In program — instructional objectives, program operating instructions, post-test, student's instructions. In supplementary material — sample program output, program operating instructions, student's instructions.

INSTRUCTIONAL OBJECTIVES: (INFERRED)
To provide supplemental instruction and drill on various concepts in algebra.

INSTRUCTIONAL PREREQUISITES: (INFERRED)
Prior instruction on the concepts covered in this package.

CONTENT AND STRUCTURE: This package is one in a series of six packages designed to supplement an algebra curriculum. Each package contains between 5 and 10 sections detailing various topics and 40 to 60 questions. The problems selected represent varying degrees of difficulty. Each section concludes with a self-checking quiz. Topics covered in this package are: Real numbers, coordinate lines, integral exponents, radicals, polynomials and algebraic expressions, factoring, Fractional Expressions Part I and Fractional Expressions Part II.

ESTIMATED STUDENT TIME REQUIRED:
Variable. A particular section can be completed in 10-15 minutes. It would not be effective to do it all at once. The entire package takes a great deal of time to get through - especially the whole series.

Continued on back

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
	•				Content has educational value.
	•				Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
		•			Student creativity is effectively stimulated.
•					Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 5 (High) to 1 (Low).
Content - 5, Instructional Characteristics - 3, Technical Characteristics - 3.

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This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

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Electronic Study Guide: Fundamental Concepts of Algebra (continued)

POTENTIAL USES: The package can be used as a review and drill of albegraic concepts that have been taught in the classroom. It will serve as a supplement to classroom instruction and can be used by individual students to reinforce sections that are difficult for the student since tutorial is provided.

MAJOR STRENGTHS: The package covers important algebraic concepts, and an explanation of each concept, with examples, is provided. Answer analysis is provided on some of the problems and hints are provided on wrong answers. The question format varies; some are multiple choice with answer analysis and hints, others are questions which are provided as a series and the student is to check his/her own work. Students are able to scroll backwards when having difficulty to review information screens. Reinforcement and review are given when students correctly answer a question, and instructional objectives are stated. The presentation is excellent and the program is easy to use.

MAJOR WEAKNESSES: Some of the instructional/discussion frames contain too much information and may be distracting. Although the manual does state how to use the package and explains the various keys and screens, more information on the content/objectives and audience/time factor would be helpful. Prior knowledge of concepts is assumed.

OTHER COMMENTS: This program would be good as a supplement to classroom instruction or for enrichment activities for advanced students. Evaluators, however, indicated they could not use it with the majority of students.

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The Electronic Study Guide: Polynomial Functions, Rational Functions, and Conic Sections

PRODUCER: Wadsworth Electronic Publishing Co.
10 Davis Drive
Belmont, CA 94002

EVALUATION COMPLETED: February 1984 by the staff and constituents of Oakland ISD, Pontiac, Michigan.

COST: $49.95; $275.00 for entire series of six packages

ABILITY LEVEL: Grades 11 through postsecondary
SUBJECT: Mathematics
TOPIC: Algebra
MEDIUM OF TRANSFER: 5-1/4 in. flexible disk
REQUIRED HARDWARE: 48K Apple II family, one disk drive, monitor (color recommended)
REQUIRED SOFTWARE: Applesoft
INSTRUCTIONAL PURPOSE: Standard instruction
INSTRUCTIONAL TECHNIQUES: Drill and practice, tutorial

DOCUMENTATION AVAILABLE: In program — instructional objectives, program operating instructions, post-test, student's instructions. In supplementary material — sample program output, program operating instructions, student's instructions.

INSTRUCTIONAL OBJECTIVES: (INFERRED) To provide supplemental instruction and drill on various concepts in algebra.

INSTRUCTIONAL PREREQUISITES: (INFERRED) Prior instruction on the concepts covered in this package.

CONTENT AND STRUCTURE: This package is one in a series of six packages designed to supplement an algebra curriculum. Each package contains between 5 and 10 sections detailing various topics and 40 to 60 questions. The problems selected represent varying degrees of difficulty. Each section concludes with a self-checking quiz. Topics covered in this package are: quadratic functions, graphs of polynomial functions, rational functions, partial fractions, and conic sections.

ESTIMATED STUDENT TIME REQUIRED: Total of 3 hours.

POTENTIAL USES: The material is designed for individual use. It would be most effective as review for advanced tests. It could be used for small group (1-3 students) practice, large group review, or as a supplement to teacher lecture.

MAJOR STRENGTHS: The content and graphics are good. The package is concise and easy to use.

MAJOR WEAKNESSES: The text is somewhat wordy — much text on screen at one time. Coverage of the topic is shallow - not enough examples to be worked by the student.

OTHER COMMENTS: The package is dull to use. A programmed workbook would be just as effective.

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
•					Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
		•			Use of package is motivational.
		•			Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
		•			User support materials are comprehensive.
		•			User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 5 (High) to 1 (Low).
Content - 4, Instructional Characteristics - 3, Technical Characteristics - 3.

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300 S.W. Sixth Avenue • Portland, Oregon 97204
(503) 248-6800

This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

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Graphing Equations

VERSION: Apple II

PRODUCER: Conduit
The University of Iowa
Oakdale Campus
Iowa City, IA 52242

EVALUATION COMPLETED: February 1984 by the staff and constituents of Oakland ISD, Pontiac, Michigan.

COST: $60.00

ABILITY LEVEL: Grades 9 through postsecondary
SUBJECT: Mathematics
TOPIC: Algebra, Trigonometry, Geometry
MEDIUM OF TRANSFER: 5-1/4 in. flexible disk
REQUIRED HARDWARE: 48K Apple II+ or Apple IIe, disk drive, monitor
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Standard instruction, enrichment
INSTRUCTIONAL TECHNIQUES: Game, simulation, problem solving, utility.

DOCUMENTATION AVAILABLE: In program — program operating instructions, student's instructions. In supplementary material — instructional objectives, sample program output, program operating instructions, teacher's information, student's instructions.

INSTRUCTIONAL OBJECTIVES: (STATED) (1) To provide practice with a variety of different graphs. Given the graph, the student will write the equation. (2) Given a set of points on the graph, the student will write equations that pass through the points.

INSTRUCTIONAL PREREQUISITES: (INFERRED) The student must be able to write the equations of conic, exponential, trigonometric, and logarithmic functions.

CONTENT AND STRUCTURE: The four programs in this package deal with graphing equations. This material is typically covered in high school algebra or in analytic geometry, but the programs are appropriate for students of any age who are studying graphs of equations. "Linear and Quadratic Graphs" and "Tracker" address only linear and quadratic graphs. The other two programs, "Green Globs" and "Equation Plotter," permit students to use a wider variety of equations, including absolute value, square root, logarithmic, exponential, and trigonometric functions.

ESTIMATED STUDENT TIME REQUIRED: Could be 15-30 minutes per day, depending upon activity assigned.

Continued on back

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
•					Content is free of stereotypes.
•					Purpose of package is well defined.
•					Package achieves defined purpose.
•					Content presentation is clear and logical.
•					Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
•					Use of package is motivational.
•					Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
•					Instruction integrates with prior learning.
•					Learning can be generalized.
	•				User support materials are comprehensive.
•					User support materials are effective.
•					Information displays are effective.
	•				Users can operate easily and independently.
•					Teachers can employ package easily.
•					Computer capabilities are used appropriately.
•					Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 5 (High) to 1 (Low).
Content - 5, Instructional Characteristics - 4, Technical Characteristics - 4.

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Graphing Equations, continued

POTENTIAL USES: The package can be used in two settings: as a large-group demonstration to reinforce graphing concepts and as an individual student activity to review, reinforce and provide extra practice and challenge. It could also be used in a lab situation where students are exploring linear and quadratic equations and graphs.

MAJOR STRENGTHS: All programs in the package provide challenging activities. Students must employ problem-solving strategies based on responses to student answers. Different programs offer varying approaches to graphing (name formula for graph), (enter equation to hit points), (locate graphs). Different student levels and abilities are targeted.

MAJOR WEAKNESSES: This package does not "teach" how to graph - there is no tutorial so that programs can be used to learn the material. The application will be to practice what one learns in the classroom (must know formulae and be familiar with material). More information or hints for students would be a good addition. The support materials could give more information as to time required and ways of employing the package.

OTHER COMMENTS: This program would be especially useful to reinforce instruction by teacher and demonstrate graphing concepts.

This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

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Mathwiz

PRODUCER: Merritt Software, Inc.
P.O. Box 1504
Fayetteville, AR 72702

EVALUATION COMPLETED: March 1984 by the staff and constituents of Oregon Total Information System (OTIS), Eugene, Oregon.

COST: $100.00 (educational discount available)

ABILITY LEVEL: Grades 5 through 8
SUBJECT: Mathematics
TOPIC: Arithmetic
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: Commodore 64 or PET, disk drive, monitor
INSTRUCTIONAL PURPOSE: Standard instruction, remediation
INSTRUCTIONAL TECHNIQUES: Tutorial, drill and practice

DOCUMENTATION AVAILABLE: In program — pre-test, post-test, teacher's information, student's instructions, follow-up activities. In supplementary materials — suggested grade/ability level(s), instructional objectives, sample program output, program operating instructions, teacher's information.

INSTRUCTIONAL OBJECTIVES: (STATED) To teach mathematical concepts typically introduced at the fifth grade level.

INSTRUCTIONAL PREREQUISITES: (INFERRED) Understanding of the concepts of fractional parts, mixed numbers, denominators, numerators, addition and subtraction, number identification, and reading skills for error and reinforcement messages.

CONTENT AND STRUCTURE: The package includes a diskette, 29-page manual, product description brochure, and a pricing and policies information sheet. The teacher may select the entry level and level of difficulty. Students may compete with themselves and a fictional character in drill programs or skill sessions. Students compete with themselves in MNA and MNS "fractions" programs. The program allows for speed control. There is a choice of 2 lessons in "Fractions", and 4 lessons in skills.

ESTIMATED STUDENT TIME REQUIRED: 10 minutes to one hour.

POTENTIAL USES: The package could be used by individual students for drill and practice, or by small groups of students.

MAJOR STRENGTHS: The package meets its stated objectives. Feedback is provided on student responses. The prompts are clear and helpful. The documentation provided is accurate. The package allows teacher control of speed and difficulty.

Continued on back

EVALUATION SUMMARY

SA	A	D	SD	NA	
	•				Content is accurate.
	•				Content has educational value.
•					Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
		•			Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
		•			Use of package is motivational.
		•			Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
•					User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
		•			Users can operate easily and independently.
		•			Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package only if certain changes were made.

Summary: Scale from 5 (High) to 1 (Low).
Content - 5, Instructional Characteristics - 5, Technical Characteristics - 1.

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Mathwiz, continued

MAJOR WEAKNESSES: The motivators used are repetitious. The screen display is justified to the left and appear off center. The directions given in the mixed fractions section are unclear. The package does not allow for students to think ahead; i.e., 5/12 is not accepted until 10/24 has been worked through. The package is not menu driven, consequently, the user must be adept at the use of the Commodore 64 disk system.

OTHER COMMENTS: Evaluators had to experiment by trial and error to find the operation for supplying responses in fractions. Students would need instruction on use of the RETURN key and to enter spaces to properly align the digits during computation. Graphic rewards are not used during the presentation and only appear at the completion of the activity.

This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

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The Money Manager

VERSION: Apple

PRODUCER: Sterling Swift Publishing Co.
7901 South IH-35
Austin, TX 78744

EVALUATION COMPLETED: February 1984 by the staff and constituents of Lehigh University, Bethlehem, Pennsylvania.

COST: $80.00

ABILITY LEVEL: Grades 9 through 12
SUBJECT: Business Education
TOPIC: Personal Finance
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: Apple II or IIe, disk drive, monitor, printer
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Standard instruction, enrichment
INSTRUCTIONAL TECHNIQUES: Tutorial, simulation

DOCUMENTATION AVAILABLE: In program — instructional objectives, program operating instructions, teacher's information, student's instructions. In supplementary materials — suggested grade/ability level(s), instructional objectives, sample program output, program operating instructions, teacher's information, student's instructions, student worksheets, follow-up activities.

INSTRUCTIONAL OBJECTIVES: To provide an individualized computer based simulation of personal finance activities.

INSTRUCTIONAL PREREQUISITES: (INFERRED) A basic knowledge of personal finance processes.

CONTENT AND STRUCTURE: One teacher disk allows the instructor to manage student progress, class lists, etc. using data disks. A student disk provides activities in budgeting, banking, credit, insurance, consumer purchasing and tax preparation. A student workbook is provided.

ESTIMATED STUDENT TIME REQUIRED: This is difficult to estimate, and would depend on the use to which the program was put.

POTENTIAL USES: This package would not be used to teach a lesson. It could be used following instruction on the subject and to plan one's own budget. Other possible uses include: (1) An individual project in general business at end of year. (2) Record keeping — as soon as budgeting is covered (entire class). (3) Business math culminating class work (entire class).

MAJOR STRENGTHS: Your files - Contain a wide range of fate and fortune circumstances that students can relate to, but sometimes don't think of. Three-Place Code - Stresses need for privacy and individuality.

MAJOR WEAKNESSES: Limited by amounts of money it will do calculations with and by the range of budgetary areas of concern.

EVALUATION SUMMARY

SA	A	D	SD	NA	
	•				Content is accurate.
	•				Content has educational value.
•					Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
•					Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
			•		Graphics/sound/color are used appropriately.
		•			Use of package is motivational.
				•	Student creativity is effectively stimulated.
•					Feedback is effectively employed.

SA	A	D	SD	NA	
				•	Learner controls rate and sequence.
				•	Instruction integrates with prior learning.
•					Learning can be generalized.
•					User support materials are comprehensive.
•					User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
•					Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 5 (High) to 1 (Low).
Content - 4, Instructional Characteristics - 1, Technical Characteristics - 3.

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Punctuation Skills: Commas

VERSION: Apple II

PRODUCER: Milton-Bradley Company
Educational Division
443 Shaker Road
East Longmeadow, MA 01028

EVALUATION COMPLETED: June 1983 by the staff and constituents of Region IV ESC, Houston, Texas

COST: $44.95

ABILITY LEVEL: Grades 5 through 9
SUBJECT: Language Arts
TOPIC: Grammar
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II plus, single disk drive, monitor, game paddles
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Remediation, standard instruction, enrichment, assessment, instructional management
INSTRUCTIONAL TECHNIQUES: Drill and practice, tutorial, game

DOCUMENTATION AVAILABLE: In program — sample program output, program operating instructions, pre-test, post-test, teacher's information, student's instructions. In supplementary materials — suggested grade/ability level(s), instructional objectives, prerequisite skills or activities, program operating instructions, teacher's information, resource/reference information, student's instructions, student worksheets, follow-up activities.

INSTRUCTIONAL OBJECTIVES: (STATED) To improve skill in the use of commas: 1) introducing clauses, 2) items in a series, 3) independent clauses, 4) dates, addresses, letters, and titles.

INSTRUCTIONAL PREREQUISITES: (INFERRED) Reading vocabulary at 5th grade level. Recognition of the comma.

CONTENT AND STRUCTURE: The package consists of one diskette, reproducible worksheets and tests, and an accompanying manual. General program design is: 1) instruction, 2) practice, 3) mastery quiz. Includes a teacher management record keeping system which allows for individual placement into appropriate level of lesson.

ESTIMATED STUDENT TIME REQUIRED: 15 minutes per day for 1-1/2 hours total time.

POTENTIAL USES: The package can be used by individual students for practice, and to reinforce related instruction.

Continued on back

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
	•				Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
		•			Student creativity is effectively stimulated.
•					Feedback is effectively employed.

SA	A	D	SD	NA	
•					Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
•					User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would highly recommend this package.

Summary: Scale from 5 (High) to 1 (Low).
Content - 5, Instructional Characteristics - 4, Technical Characteristics - 4.

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Punctuation Skills: Commas (continued)

MAJOR STRENGTHS: The program is user friendly and easy to follow. It is based on a space theme which is motivational and interesting to students. The program corrects mistakes in a pleasant manner. The record keeping feature is good.

MAJOR WEAKNESSES: The documentation for the record keeping feature could be made easier to understand.

OTHER COMMENTS: The package requires game paddles.

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Punctuation Skills: End Marks, Semicolon, and Colon

VERSION: Apple II

PRODUCER: Milton-Bradley Company
Educational Division
443 Shaker Road
East Longmeadow, MA 01028

EVALUATION COMPLETED: June 1983 by the staff and constituents of Region IV ESC, Houston, Texas

COST: $44.95

ABILITY LEVEL: Grades 5 through 8
SUBJECT: Language Arts
TOPIC: Grammar
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II plus, single disk drive, monitor
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Remediation, standard instruction, enrichment, assessment, instructional management
INSTRUCTIONAL TECHNIQUES: Drill and practice, tutorial, game

DOCUMENTATION AVAILABLE: In program — sample program output, program operating instructions, pre-test, post-test, teacher's information, student's instructions. In supplementary materials — suggested grade/ability level(s), instructional objectives, prerequisite skills or activities, program operating instructions, post-test, teacher's information, resource/reference information, student's instructions, student worksheets, and follow-up activities.

INSTRUCTIONAL OBJECTIVES: (STATED) Improves language arts skills in areas of end marks, semicolons, and colons.

INSTRUCTIONAL PREREQUISITES: (INFERRED) A general knowledge of the need for punctuation. Instruction on specific types of punctuation is given in the program.

CONTENT AND STRUCTURE: The package consists of one diskette, reproducible worksheets and tests, and an accompanying manual. General program design is: 1) instruction, 2) practice, 3) mastery quiz. Includes a teacher management record keeping system which allows for individual placement into appropriate level of lesson.

ESTIMATED STUDENT TIME REQUIRED: 15 minutes per day; 1-1/2 hour for total time.

POTENTIAL USES: The package could be used individually for practice and instruction, and to reinforce related instruction.

MAJOR STRENGTHS: The package is user friendly and easy to follow. It is motivational. The degree of difficulty increases at a good rate. Mistakes are corrected in a pleasant manner. The record keeping feature is good.

MAJOR WEAKNESSES: The documentation for the record keeping function (code numbers, etc.) could be simpler to understand.

OTHER COMMENTS: One evaluator noted that if I (instruction) was stated in each skill level for a student, the computer would not proceed — it told the student to get his/her teacher. The computer would only proceed if P (practice) or M (mastery) were listed in the student's skill file.

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
•					Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
•					Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
		•			Student creativity is effectively stimulated.
•					Feedback is effectively employed.

SA	A	D	SD	NA	
•					Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
•					User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would highly recommend this package.

Summary: Scale from 5 (High) to 1 (Low).
Content - 5, Instructional Characteristics - 4, Technical Characteristics - 4.

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Rainbow Graphics

VERSION: Copyright 1982

PRODUCER: Blue Heron Software
P.O. Box 91927
West Vancouver, BC
CANADA V7V-4S4

EVALUATION COMPLETED: January 1984 by the staff and constituents of Florida Department of Education, Tallahassee, Florida.

COST: $29.95

ABILITY LEVEL: Grade K through 12
SUBJECT: Computer Science, Art
TOPIC: Graphics
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II or II plus, one or two disk drives, color TV or monitor, joystick with two buttons
REQUIRED SOFTWARE: Applesoft in ROM, DOS 3.3
INSTRUCTIONAL PURPOSE: Enrichment
INSTRUCTIONAL TECHNIQUES: Utility

DOCUMENTATION AVAILABLE: In supplementary materials — program operating instructions, teacher's information, resource/reference information.

CONTENT AND STRUCTURE: This package consists of one diskette and a manual. This is a graphics package which allows freehand picture creation as well as design of modular style drawings. Instructions for creating various shapes, using color, creating shape tables, and filing pictures and shape tables are included.

ESTIMATED STUDENT TIME REQUIRED: Users will need at least an hour of instruction to run the program independently.

POTENTIAL USES: This high resolution graphics program could be used in an art class to design pictures. It has good potential to be used as a reward for completing other class work. A teacher could use the program to develop certificates and transparencies provided a screen dump program was available.

MAJOR STRENGTHS: The program is very motivational. All inputs are made using the joysticks and buttons. The keyboard is never used. The drawing of lines, rectangles, and circle was easy. The clone and move modes, and the shape table manipulation enable rapid construction of pictures which repeat sections.

MAJOR WEAKNESSES: The documentation is too technical for the teacher without computer experience. The joystick provided an inaccurate means of cursor control. The documentation should include clearly defined instructions for both teachers and students if this package is to be successfully used in the classroom.

OTHER COMMENTS: This package was developed with the intent of being a graphics utility for programming and, consequently, lacks the support materials needed for classroom use. Because of its use of joysticks for all inputs, the package has found its way into many classrooms.

EVALUATION SUMMARY

SA	A	D	SD	NA	
	•				Content is accurate.
				•	Content has educational value.
				•	Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
		•			Content presentation is clear and logical.
				•	Difficulty level is appropriate to audience.
				•	Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
	•				Student creativity is effectively stimulated.
				•	Feedback is effectively employed.

SA	A	D	SD	NA	
				•	Learner controls rate and sequence.
				•	Instruction integrates with prior learning.
				•	Learning can be generalized.
		•			User support materials are comprehensive.
		•			User support materials are effective.
	•				Information displays are effective.
				•	Users can operate easily and independently.
		•			Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package only if certain changes were made.

Summary: Scale from 5 (High) to 1 (Low).
Content - 3, Instructional Characteristics - 2, Technial Characteristics - 3.

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Spelling Wiz

VERSION: Apple

PRODUCER: DLM, Inc.
One DLM Park
Allen, TX 75002

EVALUATION COMPLETED: June 1983 by the staff and constituents of Linn-Benton ESD, Albany, Oregon.

COST: $44.00

ABILITY LEVEL: Grades 1 through 6
SUBJECT: Language Arts
TOPIC: Spelling
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II, single disk drive, monitor (color preferred). Commodore and Atari versions available third quarter 1984. IBM version available fourth quarter 1984.
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Remediation, standard instruction
INSTRUCTIONAL TECHNIQUES: Drill and practice, game

DOCUMENTATION AVAILABLE: In supplementary materials — instructional objectives, program operating instructions, teacher's information, student's instructions, student worksheets, and follow-up activities.

INSTRUCTIONAL OBJECTIVES: (STATED) To provide a motivating and challenging means of practicing spelling.

CONTENT AND STRUCTURE: Spelling Wiz is a program to assist students in spelling words commonly misspelled and spelling "demons." The colorful wizard uses his magic wand to zap missing letters into a word that appears at the top of the screen. Four letters or sets of letters appear opposite the Wiz. The player must select the correct letter(s) to spell the word, aim the magic wand at the letter(s), and fire. This must be done before the bubbles from the words reach the magic wand and knock it from the Wiz's hand. If the bubbles reach the magic wand first, the game will reset. If this happens three times during play, the game is immediately over.

ESTIMATED STUDENT TIME REQUIRED: The amount of time a student would need to work with the package in order to achieve the objectives would be about fifteen minutes per session.

POTENTIAL USES: The program could be used as an enrichment game in spelling.

MAJOR STRENGTHS: The makers of this program have attempted to use commonly misspelled words in this activity. This program also has interesting graphics and helps to develop hand-eye coordination in indicating a response.

MAJOR WEAKNESSES: The correct spelling of words is flashed on the monitor too quickly. The sounds used in the program are inappropriate. The instructions for operating the program are in the teacher's manual only.

EVALUATION SUMMARY

SA	A	D	SD	NA	
	•				Content is accurate.
	•				Content has educational value.
	•				Content is free of stereotypes.
	•				Purpose of package is well defined.
		•			Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
			•		Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
				•	Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
				•	Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
			•		Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would not use or recommend use of this package.

Summary: Scale from 5 (High) to 1 (Low).
Content - 4, Instructional Characteristics - 3, Technical Characteristics - 2.

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This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

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Subtracting Mixed Fractions

VERSION: Apple

PRODUCER: Microcomputer Workshops
225 West Westchester Avenue
Port Chester, NY 10573

EVALUATION COMPLETED: March 1984 by the staff and constituents of West Lafayette School Corporation, West Lafayette, Indiana.

COST: $24.95

ABILITY LEVEL: Grades 5-8
SUBJECT: Mathematics
TOPIC: Fractions
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple, single disk drive, monitor. Also available for Commodore 64, 48K Atari and IBM.
REQUIRED SOFTWARE: For Apple: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: standard instruction, remediation, enrichment
INSTRUCTIONAL TECHNIQUES: drill and practice, tutorial

DOCUMENTATION AVAILABLE: In program — prerequisite skills or activities, program operating instructions, and student's instructions. In supplementary materials — suggested grade/ability levels, instructional objectives, sample program output, teacher information.

INSTRUCTIONAL OBJECTIVES: (STATED) To give students practice in subtracting mixed fractions with unequal denominators; to facilitate the understanding of the least common denominator and different processes used to find it.

INSTRUCTIONAL PREREQUISITES: (INFERRED) The ability to perform arithmetic with integers. Minimal reading level.

CONTENT AND STRUCTURE: One diskette contains a lesson and problems on subtracting mixed fractions. Minimal documentation with a statement of objectives and a program description, including sample outputs.

ESTIMATED STUDENT TIME REQUIRED: Students can spend as little as 15 minutes at a time and achieve the objectives.

POTENTIAL USES: If the machine to student ratio is low, this is a good program to use. The package can be used well for remedial purposes if instructions are given by the teacher.

MAJOR STRENGTHS: The program is excellent and quick to the point. The program looks easy to use from the student's point of view. Student's can spend short amounts of time (15 minutes) and still profit. The package includes excellent treatment of the lowest common denominator. There are not a lot of extraneous graphics that distract more than help.

MAJOR WEAKNESSES: The package is too wordy, especially the instruction, for some students. Some graphics could help maintain interest. It is weak on display techniques, although this is not enough of a problem to prevent use as is.

EVALUATION SUMMARY

SA	A	D	SD	NA	
•					Content is accurate.
•					Content has educational value.
•					Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
				•	Graphics/sound/color are used appropriately.
		•			Use of package is motivational.
			•		Student creativity is effectively stimulated.
		•			Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
		•			Information displays are effective.
	•				Users can operate easily and independently.
•					Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale from 5 (High) to 1 (Low).
Content - 4, Instructional Characteristics - 5, Technical Characteristics - 3.

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This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

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Vocabulary I, Plurals, Sentences/Tell Me

PRODUCER: Colorado Cyphernetics, Inc.
3550 Arapahoe #4
Boulder, CO 80303

EVALUATION COMPLETED: February 1984 by the staff and constituents of Lehigh University, Bethlehem, Pennsylvania.

COST: $75.00

ABILITY LEVEL: Grades 4-8
SUBJECT: Language Arts
TOPIC: Vocabulary, Grammar
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II plus, single disk drive, monitor
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Standard instruction, remediation
INSTRUCTIONAL TECHNIQUES: Drill and practice

DOCUMENTATION AVAILABLE: In program — prerequisite skills or activities, program operating instructions, pre-test, post-test, student's instructions, student worksheets. In supplementary materials — instructional objectives, sample program output, program operating instructions, teacher's information, student's instructions.

INSTRUCTIONAL OBJECTIVES: (STATED) To give drill and practice recognizing synonyms, antonyms, homonyms, heteronyms, making plurals and proper sentence structure.

INSTRUCTIONAL PREREQUISITES: (INFERRED) The ability to read the prompting messages

CONTENT AND STRUCTURE: Vocabulary — drill and practice recognizing synonyms, antonyms, homonyms, and heteronyms. Plurals — drill and practice making plurals of words. Sentences — analyzing sentence input for proper structure.

ESTIMATED STUDENT TIME REQUIRED: Vocabulary — 3 hours total; Plurals — 2 hours total.

POTENTIAL USES: The potential use of this package is limited. Depending on grade level and competency, these programs could be used for remediation or challenge.

MAJOR STRENGTHS: None stated.

MAJOR WEAKNESSES: The program does not test for alternate responses. It accepts any answer including no answer. The user cannot exit the program at any time. The program response to user requires a comma before nomenclature of address.

OTHER COMMENTS: The program is visually boring. It does nothing better than a workbook. The "Sentence/Tell Me" portion did not run properly. When #1 was selected on the menu, the program gave a "break" message.

EVALUATION SUMMARY

SA	A	D	SD	NA	
		•			Content is accurate.
	•				Content has educational value.
•					Content is free of stereotypes.
•					Purpose of package is well defined.
		•			Package achieves defined purpose.
			•		Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
				•	Graphics/sound/color are used appropriately.
		•			Use of package is motivational.
			•		Student creativity is effectively stimulated.
		•			Feedback is effectively employed.

SA	A	D	SD	NA	
		•			Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
		•			User support materials are effective.
		•			Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
		•			Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A-Agree D-Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would not use or recommend use of this package.

Summary: Scale from 5 (High) to 1 (Low).
Content - 3, Instructional Characteristics - 1, Technical Characteristics - 1.

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Word Radar

PRODUCER: DLM, Inc.
One DLM Park
Allen, TX 75002

EVALUATION COMPLETED: April 1984 by the staff and constituents of OTIS, Eugene, Oregon.

COST: $44.00

ABILITY LEVEL: Grades 1 through 3
SUBJECT: Language Arts
TOPIC: Reading, Vocabulary
MEDIUM OF TRANSFER: 5-1/4 in. disk
REQUIRED HARDWARE: 48K Apple II/II Plus/IIe, single disk drive, monitor. Commodore and Atari versions available third quarter 1984, IBM version available fourth quarter 1984.
REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: standard instruction, remediation
INSTRUCTIONAL TECHNIQUES: drill and practice, game

DOCUMENTATION AVAILABLE: In program — program operating instructions, teacher information. In supplementary materials — suggested grade/ability levels, instructional objectives, program operating instructions, teachers information, resource/reference information, student's instructions, student worksheets, follow-up activities.

INSTRUCTIONAL OBJECTIVES: (STATED) To provide motivating and challenging means of practicing visual memory and discrimination skills with basic sight vocabulary.

INSTRUCTIONAL PREREQUISITES: (INFERRED) Reading level of first or second grade. Introduction to words in program prior to use of the package.

CONTENT AND STRUCTURE: Word Radar provides the player with practice in matching important words frequently introduced as sight word vocabulary. The radar screen that appears provides the player with the role of a control tower operating scanning words. All of the words appear for a few seconds then are blanked out with only white rectangles indicating their positions. As the radar beam in the center of the screen begins its circle, the player must match the word at the bottom of the screen with one of the words at the top. The player must move the blue word viewer to the matching word and fire. The word briefly appears on screen with the word viewer. When a hit (match) is made, the word remains revealed on the screen and another word appears to be matched. All words must be revealed before the radar beam completes its circle or the screen will dissolve and the game reset. If this happens three times during the game, the game is immediately over.

Continued on back

EVALUATION SUMMARY

SA	A	D	SD	NA	
	•				Content is accurate.
	•				Content has educational value.
	•				Content is free of stereotypes.
•					Purpose of package is well defined.
		•			Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
•					Use of package is motivational.
				•	Student creativity is effectively stimulated.
	•				Feedback is effectively employed.

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
		•			Learning can be generalized.
	•				User support materials are comprehensive.
		•			User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicated that they would use or recommend use of this package with little or no change.

Summary: Scale of 5 (High) to 1 (Low).
Content - 4, Instructional Characteristics - 2, Technical Characteristics - 5.

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Word Radar, continued

ESTIMATED STUDENT TIME REQUIRED: The program recordkeeping sheets allow for 10 weeks input. The program also suggests regular, short periods of play, if not daily, then several times a week to be most effective.

POTENTIAL USES: In a primary classroom or resource room with learning disabled children. This program is useful for drilling on problem sight words. The package contains paper and pencil practice drills to extend the game to other classroom activities. The program could be incorporated with other learning/drill activities of sight words.

MAJOR STRENGTHS: The program is motivational because children found it challenging and fun. The fast-paced drill allows children to repeat the program several times without experiencing boredom. The control options allow for different skill levels. The majority of words are from the Dolch Basic Word List, making the program appropriate for use with many basic reading programs.

MAJOR WEAKNESSES: The strategies developed to increase the number of hits per game include not reading the word, but only matching beginning letters, and not matching the last word. The instructional information is difficult to understand, particularly the directions for using the recordkeeping worksheets. The program stated goals and pre-test level of difficulty were too high and, in the latter case, required re-setting every time program was started.

OTHER COMMENTS: The instructions do not mention keeping the caps lock key locked to use control options.

This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

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MICROSIFT EVALUATIONS: SUBJECT

SUBJECT	TITLE	PRODUCER	HRD	LEVEL	SET
BASIC LIVING SKILLS	HOME SAFE HOME	MCE, INC.	AP	M H	1
	INCOME MEETS EXPENSES	MCE, INC.	AP	M H	1
	JOB READINESS: ASSMT. & DEV.	MCE, INC.	AP	M H	1
	MONEY MANAGEMENT ASSESSMENT	MCE, INC.	AP	M H	1
	POISON PROOF YOUR HOME	MCE, INC.	AP	M H	1
	YOU CAN BANK ON IT	MCE, INC.	AP	M H	1
BUSINESS EDUCATION	MASTER TYPE	LIGHTNING SOFTWARE	AP	M H	8
	NUMERIC DATA ENTRY PRACTICE	RADIO SHACK EDUCATION DIVISION	RS	H	4
	THE MONEY MANAGER	STERLING SWIFT	AP	H	10
	TOUCH TYPING	COVE VIEW PRESS SOFTWARE	RS	M H	4
	TYPING TUTOR	MICROSOFT CONSUMER PRODUCTS	AP	M H	2
CAREER EDUCATION	CAREER DIRECTIONS	SYSTEMS DESIGN ASSOCIATES	AP	H	8
	CAREER SCAN IV	NATIONAL EDUCATIONAL SOFTWARE	AP	M H	9
COMPUTER SCIENCE	COMPUTER LITERACY: INTRO.	CONTROL DATA PUBLISHING CO.	AP	M H	9
	DISCOVER BASIC	STERLING SWIFT	AP	M H	6
	KAREL THE ROBOT	CYBERTRONICS INTERNATIONAL	AP	H	3
	PERSONAL GRAPHICS	LITTLE, BROWN & CO.	AP	H	9
	RAINBOW GRAPHICS	BLUE HERRON SOFTWARE	AP	M H	10
	THE PROGRAMMABLE CUBE	METACOMET SOFTWARE	AP	H	6
LANGUAGE ARTS	ADVERTISING TECHNIQUES	MICRO POWER & LIGHT CO.	AP	M H	9
	ALPHABET KEYBOARD	RANDOM HOUSE, SCHOOL DIVISION	RS	P	3
	ALPINE SKIER	DATA COMMAND	AP	M	8
	ANTONYMS/SYNONYMS	HARTLEY COURSEWARE, INC.	AP	E M	5
	BASIC ENGLISH SKILLS	ENCYCLOPEDIA BRITANNICA	AP	M H	5
	BIG DOOR DEAL	DATA COMMAND	AP	M H	9
	BRIDGE TO TERABITHIA	SUNBURST COMMUNICATIONS	AP	M	8
	CALL OF THE WILD	A/V CONCEPTS CORPORATION	AP	E M	8
	CARIS	ENCYCLOPEDIA BRITANNICA	AP	P	7
	CHAMBERS OF VOCAB	READER'S DIGEST SERVICES	AP	E M H	10
	CLOZE PLUS (CONTEXT ANALYSIS)	I/CT AND MILLIKEN	AP	P	9
	COMPREHENSION POWER PROGRAM	I/CT AND MILLIKEN	AP	E M H	4
	CONSONANTS/BLENDS	HARTLEY COURSEWARE, INC.	AP	P	5
	CREATE SPELL-IT	HARTLEY COURSEWARE, INC.	AP	E M	5
	CREATE VOCABULARY	HARTLEY COURSEWARE, INC.	AP	E M	6
	DIASCRIPTIVE READING	EDUCATIONAL ACTIVITIES, INC.	AP	E M	8
	EARL'S WORD POWER	GEORGE EARL	AP	E M H	7
	ENGLISH COMPUTORIALS	EDUCULTURE	AP	H	4
	ENGLISH, VOLUME 1	MECC	AP	M	8
	FLOPPY TEACHES HOW TO PRINT	FLOPPY ENTERPRISES	AP	P	8
	GRAMMAR AND WRITING	ENCYCLOPEDIA BRITANNICA	AP	E	9
	GRAMMAR PACKAGE I	MICRO LEARNINGWARE	RS	E	4
	GRAMMAR PROBLEMS FOR PRCT.-HOM	MILLIKEN PUBLISHING COMPANY	AP	E M	4
	HOMONYMS IN CONTEXT	RANDOM HOUSE, SCHOOL DIVISION	AP	E M	4
	LETTER RECOGNITION	HARTLEY COURSEWARE, INC.	AP	P	5
	MAGIC SPELLS	THE LEARNING COMPANY	AP	E M	5
	MULTIPLE SKILLS	HARTLEY COURSEWARE, INC.	AP	P	6
	NOUNS/PRONOUNS	HARTLEY COURSEWARE, INC.	AP	E	5
	OUR WEIRD & WACKY WORLD: COMP	EDUCATIONAL ACTIVITIES, INC.	AP	E	6
	OUR WEIRD & WACKY WORLD: RDG	EDUCATIONAL ACTIVITIES, INC.	AP	E	6
	PHONET	TIES	AP	E	6
	PIK-PEK-PUT	DATA COMMAND	AP	E M	9

MICROSIFT EVALUATIONS: SUBJECT

SUBJECT	TITLE	PRODUCER	HRD	LEVEL	SET
	PUNCTUATION SKILLS: COMMAS	MILTON-BRADLEY	AP	E M	10
	PUNCTUATION SKILLS: END MARKS	MILTON-BRADLEY	AP	E M	10
	READING FLIGHT	SCOTT, FORESMAN AND COMPANY	TI	E	7
	READING RALLY	SCOTT, FORESMAN AND COMPANY	TI	E	7
	READING ROUNDUP	SCOTT, FORESMAN AND COMPANY	TI	E	7
	RHYMES AND RIDDLES	SPINNAKER SOFTWARE	AP	P	8
	RIDDLE ME THIS	DATA COMMAND	AP	E M	8
	ROOTS/AFFIXES	HARTLEY COURSEWARE, INC.	AP	E M	5
	SENTENCE DIAGRAMMING	AVANT-GARDE CREATIONS	AP	M H	4
	SENTENCES	MICRO POWER & LIGHT CO.	AP	M H	4
	SIMS	TIES	AP	E	6
	SPECIAL NEEDS VOLUME 1: SPLLNG	MECC	AP	E	9
	SPEED READER	DAVIDSON AND ASSOCIATES	AP	M H	5
	SPELLING STRATEGY	BEHAVIORAL ENGINEERING	AP	E M	5
	SPELLING WIZ	DLM, INC.	AP	E	10
	STORY MACHINE	SPINNAKER SOFTWARE	AP	P	8
	TANK TACTICS	DATA COMMAND	AP	E M H	9
	TENNIS ANYONE?	DATA COMMAND	AP	E M	8
	THE ANTONYM GAME	J & S SOFTWARE	AP	M	10
	THE MESTING GAME	SUNBURST COMMUNICATIONS	AP	M	8
	VERB VIPER	DLM, INC.	AP	E	9
	VERBS	HARTLEY COURSEWARE, INC.	AP	E	5
	VOCABULARY DOLCH	HARTLEY COURSEWARE, INC.	AP	P	5
	VOCABULARY I, PLURALS, SENT.	COLORADO CYPHERNETICS	AP	E M	10
	VOCABULARY SKILLS: CONTEXT CLU	MILTON-BRADLEY	AP	M	8
	VOCABULARY SKILLS: PREF,SUF,RT	MILTON-BRADLEY	AP	M	8
	VOWELS	HARTLEY COURSEWARE, INC.	AP	E	6
	WHO, WHAT, WHERE, WHEN	HARTLEY COURSEWARE, INC.	AP	E	6
	WORD FAMILIES	HARTLEY COURSEWARE, INC.	AP	P	5
	WORD GAMES	MECC	AT	E	7
	WORD INVASION	DLM, INC.	AP	E M	9
	WORD MASTER	DLM, INC.	AP	M	8
	WORD MEMORY PROGRAM	I/CT, INC.	AP	P	8
	WORD RADAR	DLM, INC.	AP	P	10
	WORD SEARCH	HARTLEY COURSEWARE, INC.	AP	E	5
	WORDMAN	DLM, INC.	AP	E	9
	WORDWATCH	INSTANT SOFTWARE, INC.	RS	M	4
	WORDWRIGHT	ENCYCLOPEDIA BRITANNICA	AP	E M H	7
LANGUAGES	FRENCH VOCABULARY BUILDER	CONTROL DATA PUBLISHING CO.	AP	M H	9
	GERMAN VOCABULARY BUILDER	CONTROL DATA PUBLISHING CO.	AP	M H	9
	LE VOCABULAIRE FRANCAIS	ISLAND SOFTWARE	AP	M H	9
	SPANISH VOCABULARY BUILDER	CONTROL DATA PUBLISHING CO.	AP	M H	9
	THE GERMAN/RUSSIAN HANGMAN	GEORGE EARL	AP	H	9
	THE SPANISH HANGMAN	GEORGE EARL	AP	M H	4
LIBRARIES	LIBRARY SKILLS: WHAT'S THERE	MICRO POWER & LIGHT CO.	AP	E M H	2
MATHEMATICS	ADDITION AND SUBTRACTION 1 & 2	SCOTT, FORESMAN AND COMPANY	TI	P	3
	ALIEN ADDITION	DLM, INC.	AP	E	3
	ALLIGATOR MIX	DLM, INC.	AP	E M	4
	APPLE$URFACE	CONDUIT	AP	M	4
	ARBPLOT	CONDUIT	AP	H	10
	ARITH-MAGIC	QED, INC.	AP	E M	7
	ARITHMETIC OF FUNCTIONS	MATH SOFTWARE	AP	H	2
	ARITHMETIC RACING	MATH SOFTWARE	AP	E M	2

MICROSIFT EVALUATIONS: SUBJECT

SUBJECT	TITLE	PRODUCER	HRD	LEVEL	SET
	BINOMIAL MULTIPLICATION	MATH SOFTWARE	AP	H	2
	BUMBLE GAMES	THE LEARNING COMPANY	AP	E	7
	BUMBLE PLOT	THE LEARNING COMPANY	AP	E M	7
	CLOCK	HARTLEY COURSEWARE, INC.	AP	P	6
	COMPU-MATH: FRACTIONS	EDU-WARE SERVICES	AP	M H	10
	COMPUTER GRAPHING EXPERIMENTS	ADDISON-WESLEY PUBLISHING CO.	AP	H	6
	COMPUTER MATH ACTIVITIES, V-1	ADDISON-WESLEY PUBLISHING CO.	AP	E M	7
	COMPUTER MATH ACTIVITIES, V-2	ADDISON-WESLEY PUBLISHING CO.	AP	E M	7
	COMPUTER MATH ACTIVITIES, V-3	ADDISON-WESLEY PUBLISHING CO.	AP	E M	7
	COMPUTER MATH ACTIVITIES, V-4	ADDISON-WESLEY PUBLISHING CO.	AP	E M	7
	COMPUTER MATH ACTIVITIES, V-5	ADDISON-WESLEY PUBLISHING CO.	AP	E M	9
	COMPUTER MATH GAMES	ADDISON-WESLEY PUBLISHING CO.	AP	E M	6
	DECIMAL SKILLS	MILTON-BRADLEY	AP	E M	8
	DECIMALS	QED, INC.	AP	E M	10
	DECIMALS PRACTICE	CONTROL DATA PUBLISHING CO.	AP	E M	9
	DIVISION 1	SCOTT, FORESMAN AND COMPANY	TI	E	7
	DIVISION SKILLS	MILTON-BRADLEY	AP	E M	10
	DRAGON MIX	DLM, INC.	AP	E M	7
	ELECTRONIC BLACKBOARD: FUNCT.	WADSWORTH	AP	H	10
	ELECTRONIC BLACKBOARD: TRIG.	WADSWORTH	AP	H	10
	ELECTRONIC STUDY GUIDE: D-I	WADSWORTH	AP	H	10
	ELECTRONIC STUDY GUIDE: D-II	WADSWORTH	AP	H	10
	ELECTRONIC STUDY GUIDE: D-III	WADSWORTH	AP	H	10
	ELECTRONIC STUDY GUIDE: D-IV	WADSWORTH	AP	H	10
	ELECTRONIC STUDY GUIDE: D-V	WADSWORTH	AP	H	10
	ELEMENTARY MATH	MECC	AP	E M	7
	ELEMENTARY MATHEMATICS CLASS-ROOM LEARNING SYST.: WHOLE NO.	STERLING SWIFT	AP	M	4
	EMSI-6	EDUCATIONAL MICROSYSTEMS, INC.	RS	E M	1
	ESSENTIAL MATH PROGRAM	RADIO SHACK EDUCATION DIVISION	RS	M H	4
	EUCLID GEOMETRY TUTOR	RADIO SHACK EDUCATION DIVISION	RS	H	4
	EXPANDED NOTATION	HARTLEY COURSEWARE, INC.	AP	E	6
	FACTORING WHOLE NUMBERS	QED, INC.	AP	E M	1
	FRACTIONS	QED, INC.	AP	E M	1
	FRACTIONS PRACTICE	CONTROL DATA PUBLISHING CO.	AP	E M	9
	FUNCTION GRAPHER	MATH SOFTWARE	AP	M H	2
	FUNDAMENTAL MATH I, II, III	RANDOM HOUSE, SCHOOL DIVISION	RS	E M	4
	GRAPHING EQUATIONS	CONDUIT	AP	H	10
	INSTRUCTIONAL COMPUTING: ALG-2	PINELLAS COUNTY SCHOOL SYSTEM	AP	H	4
	LEMONADE	ATARI PROGRAM EXCHANGE	AT	E M	5
	LESSONS IN ALGEBRA	GEORGE EARL	AP	M	6
	LINACONS AND THEIR AREAS	MATH SOFTWARE	AP	H	2
	LIMITS OF SEQUENCES	MATH SOFTWARE	AP	H	2
	MATH CONCEPTS	HARTLEY COURSEWARE, INC.	AP	E	5
	MATH FACTS/NUMBER & MATH MSTRY	COLORADO CYPHERNETICS	AP	E	6
	MATH SEQUENCES	MILLIKEN PUBLISHING COMPANY	AP	E M	2
	MATH SKILLS: ELEMENTARY	ENCYCLOPEDIA BRITANNICA	AP	E	6
	MATH SKILLS: JUNIOR HIGH	ENCYCLOPEDIA BRITANNICA	AP	M	7
	MATH STRATEGY	BEHAVIORAL ENGINEERING	AP	E M	5
	MATH STRATEGY: LINEAR SEARCH	CREATIVE PUBLICATIONS, INC.	AP	M	3
	MATHEMATICS ASSMT/PRESC 5-7	READER'S DIGEST SERVICES	AP	E M	8
	MATHEMATICS DRILL AND PRACTICE	COMPAK, INC.	AP	E M	2
	MATHWIZ	MERRITT SOFTWARE	CO	E M	10

SUBJECT	TITLE	PRODUCER	HRD	LEVEL	SET
	METRIC DRILL	HARTLEY COURSEWARE, INC.	AP	E M	5
	MINUS MISSION	DLM, INC.	AP	E M	4
	MIXED NUMBERS	MILTON-BRADLEY	AP	E M	7
	MOPTOWN	THE LEARNING COMPANY	AP	E M	7
	MORE ALGEBRA: COMP	TYCOM ASSOCIATES	PET	H	4
	MORE ALGEBRA: DISC	TYCOM ASSOCIATES	PET	H	4
	MORE ALGEBRA: QUAD	TYCOM ASSOCIATES	PET	H	4
	MORE ALGEBRA: SIMUL	TYCOM ASSOCIATES	PET	H	4
	MORE ALGEBRA: SLOPE	TYCOM ASSOCIATES	PET	H	4
	NUMBER BLAST	ATARI PROGRAM EXCHANGE	AT	E M	4
	NUMBER WORDS, LEVEL 1	HARTLEY COURSEWARE, INC.	AP	E	6
	NUMBER WORDS, LEVEL 2	HARTLEY COURSEWARE, INC.	AP	E	6
	PRESCRIPTIVE MATH DRILL	HARTLEY COURSEWARE, INC.	AP	E M	6
	READ AND SOLVE MATH PROBLEMS	EDUCATIONAL ACTIVITIES, INC.	AP	E	8
	STICKYBEAR NUMBERS	XEROX EDUCATION PUBLICATIONS	AP	P	9
	SUBTRACTING MIXED FRACTIONS	MICROCOMPUTER WORKSHOPS	AP	E M	10
	TEASERS BY TOBBS	SUNBURST COMMUNICATIONS	AP	E M	8
	THE ARITHMETIC CLASSROOM: DEC	STERLING SWIFT	AP	E M	5
	THE ARITHMETIC CLASSROOM: FRAC	STERLING SWIFT	AP	E M	5
	WHOLE NUMBERS PRACTICE	CONTROL DATA PUBLISHING CO.	AP	E M	9
MISC.	FACEMAKER	SPINNAKER SOFTWARE	AP	P	8
	KRELL'S COLLEGE BOARD SAT	KRELL SOFTWARE CORPORATION	AP	H	7
MUSIC	KEYBOARD ORGAN	ATARI PROGRAM EXCHANGE	AT	M H	5
PHYSICAL EDUCATION	SPORTS STATS	TIES	AP	M H	9
PROBLEM SOLVING	CHECKERS	ODESTA	AP	E M H	6
	CHESS	ODESTA	AP	E M H	6
	MIND BENDERS, A3	MIDWEST PUBLICATIONS	AP	E M H	9
	MIND BENDERS, B1	MIDWEST PUBLICATIONS	AP	E M H	9
	ODIN	ODESTA	AP	E M H	6
	THE FACTORY	SUNBURST COMMUNICATIONS	AT	E M H	9
SCHOOL READINESS	JUGGLES' RAINBOW	THE LEARNING COMPANY	AP	P	6
	MY FIRST ALPHABET	ATARI, INC.	AT	P	4
SCIENCES	BIOLOGY: ENERGY AND LIFE	ENCYCLOPEDIA BRITANNICA	AP	H	10
	BIOLOGY: THE CELL	ENCYCLOPEDIA BRITANNICA	AP	H	9
	CHEMISTRY: ACIDS AND BASES	ENCYCLOPEDIA BRITANNICA	AP	H	7
	CIRCULATION (ORGANS)	MICRO POWER & LIGHT CO.	AP	E M H	2
	COMPUTER SIMULATED PHYSICS EXP	EDUTECH	AP	H	4
	ENERGY CZAR	ATARI, INC.	AT	M H	4
	EVOLUT	CONDUIT	AP	H	4
	GENETICS	TIES	AP	E M	9
	MILLIKAN	MENTOR SOFTWARE, INC.	AP	H	4
	NEWTON	CONDUIT	AP	H	4
	ODELL LAKE	MECC	AP	E M	2
	PHYSICS: ELEMENTARY MECHANICS	CONTROL DATA PUBLISHING CO.	AP	H	9
	PRECISION TIMER	VERNIER SOFTWARE	AP	H	7
	ROCKY'S BOOTS	THE LEARNING COMPANY	AP	E M H	6
	THE ATOM	MICRO-ED, INC.	AP	M	6
	THREE MILE ISLAND	MUSE SOFTWARE	AP	H	6
	TITRATION	MENTOR SOFTWARE, INC.	AP	H	4
	VOLCANOES	EARTHWARE COMPUTER SERVICES	AP	H	3
SOCIAL STUDIES	CAPTELS AND CUTTHROATS	STRATEGIC SIMULATIONS, INC.	AP	H	8

MICROSIFT EVALUATIONS: SUBJECT

SUBJECT	TITLE	PRODUCER	HRD	LEVEL	SET
	DEMO-GRAPHICS	CONDUIT	AP	H	4
	ELEMENTARY VOLUME 6: SOC. ST.	MECC	AP	E M	8
	GEOGRAPHY	MECC	AT	E M	7
	GEOGRAPHY EXPLORER: USA	INSTANT SOFTWARE, INC.	RS	M H	1
	MAP READING	MICRO POWER & LIGHT CO.	AP	E M	8
	PRESIDENT ELECT	STRATEGIC SIMULATIONS, INC.	AP	M H	8
	SOCIAL STUDIES, VOLUME 2	MECC	AP	M H	8
	THE DECISION SHOP	THE CHILDREN'S MUSEUM OF IND.	AP	E M	7
	THE EXPLORING AMERICA SERIES	AQUARIUS	AP	M H	9
	THE MARKET PLACE	MECC	AT	E M	7
TEACHER UTILITY	CREATE FILL-IN-THE-BLANKS	HARTLEY COURSEWARE, INC.	AP	E	5
	CREATE SKILLS: ELEM./INT.	HARTLEY COURSEWARE, INC.	AP	E	5
	EASY GRADER	ATARI PROGRAM EXCHANGE	AT	E M H	5
	THE SHELL GAMES	APPLE COMPUTER, INC.	AP	E M H	1
	THE WIZARD	PROGRAMS UNLIMITED	RS	M H	3
TESTING	TEST BANK	ADVANCED TECHNOLOGY APPLIC.	RS	E M H	5

MICROSIFT EVALUATIONS: TITLE

TITLE	PRODUCER	HRD	LEVEL	SUBJECT	SET
ADDITION AND SUBTRACTION 1 & 2	SCOTT, FORESMAN AND COMPANY	TI	P	MATHEMATICS	3
ADVERTISING TECHNIQUES	MICRO POWER & LIGHT CO.	AP	M H	LANGUAGE ARTS	9
ALIEN ADDITION	DLM, INC.	AP	E	MATHEMATICS	3
ALLIGATOR MIX	DLM, INC.	AP	E M	MATHEMATICS	4
ALPHABET KEYBOARD	RANDOM HOUSE, SCHOOL DIVISION	RS	P	LANGUAGE ARTS	3
ALPINE SKIER	DATA COMMAND	AP	M	LANGUAGE ARTS	8
ANTONYMS/SYNONYMS	HARTLEY COURSEWARE, INC.	AP	E M	LANGUAGE ARTS	5
APPLE#SURFACE	CONDUIT	AP	H	MATHEMATICS	4
ARBPLOT	CONDUIT	AP	H	MATHEMATICS	10
ARITH-MAGIC	QED, INC.	AP	E M	MATHEMATICS	7
ARITHMETIC OF FUNCTIONS	MATH SOFTWARE	AP	H	MATHEMATICS	2
ARITHMETIC RACING	MATH SOFTWARE	AP	E M	MATHEMATICS	2
BASIC ENGLISH SKILLS	ENCYCLOPEDIA BRITANNICA	AP	M H	LANGUAGE ARTS	5
BIG DOOR DEAL	DATA COMMAND	AP	M H	LANGUAGE ARTS	9
BINOMIAL MULTIPLICATION	MATH SOFTWARE	AP	H	MATHEMATICS	2
BIOLOGY: ENERGY AND LIFE	ENCYCLOPEDIA BRITANNICA	AP	H	SCIENCES	10
BIOLOGY: THE CELL	ENCYCLOPEDIA BRITANNICA	AP	H	SCIENCES	9
BRIDGE TO TERABITHIA	SUNBURST COMMUNICATIONS	AP	M	LANGUAGE ARTS	8
BUMBLE GAMES	THE LEARNING COMPANY	AP	E	MATHEMATICS	7
BUMBLE PLOT	THE LEARNING COMPANY	AP	E M	MATHEMATICS	7
CALL OF THE WILD	A/V CONCEPTS CORPORATION	AP	E M	LANGUAGE ARTS	8
CAREER DIRECTIONS	SYSTEMS DESIGN ASSOCIATES	AP	H	CAREER EDUCATION	8
CAREER SCAN IV	NATIONAL EDUCATIONAL SOFTWARE	AP	M H	CAREER EDUCATION	9
CARIS	ENCYCLOPEDIA BRITANNICA	AP	P	LANGUAGE ARTS	7
CARTELS AND CUTTHROATS	STRATEGIC SIMULATIONS, INC.	AP	H	SOCIAL STUDIES	8
CHAMBERS OF VOCAB	READER'S DIGEST SERVICES	AP	E M H	LANGUAGE ARTS	10
CHECKERS	ODESTA	AP	E M H	PROBLEM SOLVING	6
CHEMISTRY: ACIDS AND BASES	ENCYCLOPEDIA BRITANNICA	AP	H	SCIENCES	7
CHESS	ODESTA	AP	E M H	PROBLEM SOLVING	6
CIRCULATION (ORGANS)	MICRO POWER & LIGHT CO.	AP	E M H	SCIENCES	2
CLOCK	HARTLEY COURSEWARE, INC.	AP	P	MATHEMATICS	6
CLOZE PLUS (CONTEXT ANALYSIS)	I/CT AND MILLIKEN	AP	P	LANGUAGE ARTS	9
COMPREHENSION POWER PROGRAM	I/CT AND MILLIKEN	AP	E M H	LANGUAGE ARTS	4
COMPU-MATH: FRACTIONS	EDU-WARE SERVICES	AP	M H	MATHEMATICS	10
COMPUTER GRAPHING EXPERIMENTS	ADDISON-WESLEY PUBLISHING CO.	AP	H	MATHEMATICS	6
COMPUTER LITERACY: INTRO.	CONTROL DATA PUBLISHING CO.	AP	M H	COMPUTER SCIENCE	9
COMPUTER MATH ACTIVITIES, V-1	ADDISON-WESLEY PUBLISHING CO.	AP	E M	MATHEMATICS	7
COMPUTER MATH ACTIVITIES, V-2	ADDISON-WESLEY PUBLISHING CO.	AP	E M	MATHEMATICS	7
COMPUTER MATH ACTIVITIES, V-3	ADDISON-WESLEY PUBLISHING CO.	AP	E M	MATHEMATICS	7
COMPUTER MATH ACTIVITIES, V-4	ADDISON-WESLEY PUBLISHING CO.	AP	E M	MATHEMATICS	7
COMPUTER MATH ACTIVITIES, V-5	ADDISON-WESLEY PUBLISHING CO.	AP	E M	MATHEMATICS	9
COMPUTER MATH GAMES	ADDISON-WESLEY PUBLISHING CO.	AP	E M	MATHEMATICS	6
COMPUTER SIMULATED PHYSICS EXP	EDUTECH	AP	H	SCIENCES	4
CONSONANTS/BLENDS	HARTLEY COURSEWARE, INC.	AP	P	LANGUAGE ARTS	5
CREATE FILL-IN-THE-BLANKS	HARTLEY COURSEWARE, INC.	AP	E	TEACHER UTILITY	5
CREATE SKILLS: ELEM./INT.	HARTLEY COURSEWARE, INC.	AP	E	TEACHER UTILITY	5
CREATE SPELL-IT	HARTLEY COURSEWARE, INC.	AP	E M	LANGUAGE ARTS	5
CREATE VOCABULARY	HARTLEY COURSEWARE, INC.	AP	E M	LANGUAGE ARTS	6
DECIMAL SKILLS	MILTON-BRADLEY	AP	E M	MATHEMATICS	8
DECIMALS	QED, INC.	AP	E M	MATHEMATICS	10
DECIMALS PRACTICE	CONTROL DATA PUBLISHING CO.	AP	E M	MATHEMATICS	9
DEMO-GRAPHICS	CONDUIT	AP	H	SOCIAL STUDIES	4
DIASCRIPTIVE READING	EDUCATIONAL ACTIVITIES, INC.	AP	E M	LANGUAGE ARTS	8
DISCOVER BASIC	STERLING SWIFT	AP	M H	COMPUTER SCIENCE	6
DIVISION 1	SCOTT, FORESMAN AND COMPANY	TI	E	MATHEMATICS	7

TITLE	PRODUCER	HRD	LEVEL	SUBJECT	SET
DIVISION SKILLS	MILTON-BRADLEY	AP	E M	MATHEMATICS	10
DRAGON MIX	DLM, INC.	AP	E M	MATHEMATICS	7
EARL'S WORD POWER	GEORGE EARL	AP	E M H	LANGUAGE ARTS	7
EASY GRADER	ATARI PROGRAM EXCHANGE	AT	E M H	TEACHER UTILITY	5
ELECTRONIC BLACKBOARD: FUNCT.	WADSWORTH	AP	H	MATHEMATICS	10
ELECTRONIC BLACKBOARD: TRIG.	WADSWORTH	AP	H	MATHEMATICS	10
ELECTRONIC STUDY GUIDE: D-I	WADSWORTH	AP	H	MATHEMATICS	10
ELECTRONIC STUDY GUIDE: D-II	WADSWORTH	AP	H	MATHEMATICS	10
ELECTRONIC STUDY GUIDE: D-III	WADSWORTH	AP	H	MATHEMATICS	10
ELECTRONIC STUDY GUIDE: D-IV	WADSWORTH	AP	H	MATHEMATICS	10
ELECTRONIC STUDY GUIDE: D-V	WADSWORTH	AP	H	MATHEMATICS	10
ELEMENTARY MATH	MECC	AP	E M	MATHEMATICS	7
ELEMENTARY MATHEMATICS CLASS-ROOM LEARNING SYST.: WHOLE NO.	STERLING SWIFT	AP	M	MATHEMATICS	4
ELEMENTARY VOLUME 6: SOC. ST.	MECC	AP	E M	SOCIAL STUDIES	8
EMSI-6	EDUCATIONAL MICROSYSTEMS, INC.	RS	E M	MATHEMATICS	1
ENERGY CZAR	ATARI, INC.	AT	M H	SCIENCES	4
ENGLISH COMPUTORIALS	EDUCULTURE	AP	H	LANGUAGE ARTS	4
ENGLISH, VOLUME 1	MECC	AP	M	LANGUAGE ARTS	8
ESSENTIAL MATH PROGRAM	RADIO SHACK EDUCATION DIVISION	RS	M H	MATHEMATICS	4
EUCLID GEOMETRY TUTOR	RADIO SHACK EDUCATION DIVISION	RS	H	MATHEMATICS	4
EVOLUT	CONDUIT	AP	H	SCIENCES	4
EXPANDED NOTATION	HARTLEY COURSEWARE, INC.	AP	E	MATHEMATICS	6
FACEMAKER	SPINNAKER SOFTWARE	AP	P	MISC.	8
FACTORING WHOLE NUMBERS	QED, INC.	AP	E M	MATHEMATICS	1
FLOPPY TEACHES HOW TO PRINT	FLOPPY ENTERPRISES	AP	P	LANGUAGE ARTS	8
FRACTIONS	QED, INC.	AP	E M	MATHEMATICS	1
FRACTIONS PRACTICE	CONTROL DATA PUBLISHING CO.	AP	E M	MATHEMATICS	9
FRENCH VOCABULARY BUILDER	CONTROL DATA PUBLISHING CO.	AP	M H	LANGUAGES	9
FUNCTION GRAPHER	MATH SOFTWARE	AP	M H	MATHEMATICS	2
FUNDAMENTAL MATH I, II, III	RANDOM HOUSE, SCHOOL DIVISION	RS	E M	MATHEMATICS	4
GENETICS	TIES	AP	E M	SCIENCES	9
GEOGRAPHY	MECC	AT	E M	SOCIAL STUDIES	7
GEOGRAPHY EXPLORER: USA	INSTANT SOFTWARE, INC.	RS	M H	SOCIAL STUDIES	1
GERMAN VOCABULARY BUILDER	CONTROL DATA PUBLISHING CO.	AP	M H	LANGUAGES	9
GRAMMAR AND WRITING	ENCYCLOPEDIA BRITANNICA	AP	E	LANGUAGE ARTS	9
GRAMMAR PACKAGE I	MICRO LEARNINGWARE	RS	E	LANGUAGE ARTS	4
GRAMMAR PROBLEMS FOR PRCT.-HOM	MILLIKEN PUBLISHING COMPANY	AP	E M	LANGUAGE ARTS	4
GRAPHING EQUATIONS	CONDUIT	AP	H	MATHEMATICS	10
HOME SAFE HOME	MCE, INC.	AP	M H	BASIC LIVING SKILLS	1
HOMONYMS IN CONTEXT	RANDOM HOUSE, SCHOOL DIVISION	AP	E M	LANGUAGE ARTS	4
INCOME MEETS EXPENSES	MCE, INC.	AP	M H	BASIC LIVING SKILLS	1
INSTRUCTIONAL COMPUTING: ALG-2	PINELLAS COUNTY SCHOOL SYSTEM	AP	H	MATHEMATICS	4
JOB READINESS: ASSMT. & DEV.	MCE, INC.	AP	M H	BASIC LIVING SKILLS	1
JUGGLES' RAINBOW	THE LEARNING COMPANY	AP	P	SCHOOL READINESS	6
KAREL THE ROBOT	CYBERTRONICS INTERNATIONAL	AP	H	COMPUTER SCIENCE	3
KEYBOARD ORGAN	ATARI PROGRAM EXCHANGE	AT	M H	MUSIC	5
KRELL'S COLLEGE BOARD SAT	KRELL SOFTWARE CORPORATION	AP	H	MISC.	7
LE VOCABULAIRE FRANCAIS	ISLAND SOFTWARE	AP	M H	LANGUAGES	9
LEMONADE	ATARI PROGRAM EXCHANGE	AT	E P	MATHEMATICS	5
LESSONS IN ALGEBRA	GEORGE EARL	AP	M	MATHEMATICS	6
LETTER RECOGNITION	HARTLEY COURSEWARE, INC.	AP	P	LANGUAGE ARTS	5
LIBRARY SKILLS: WHAT'S THERE	MICRO POWER & LIGHT CO.	AP	E M H	LIBRARIES	2

MICROSIFT EVALUATIONS: TITLE

TITLE	PRODUCER	HRD	LEVEL	SUBJECT	SET
LINACONS AND THEIR AREAS	MATH SOFTWARE	AP	H	MATHEMATICS	2
LIMITS OF SEQUENCES	MATH SOFTWARE	AP	H	MATHEMATICS	2
MAGIC SPELLS	THE LEARNING COMPANY	AP	E M	LANGUAGE ARTS	5
MAP READING	MICRO POWER & LIGHT CO.	AP	E M	SOCIAL STUDIES	8
MASTER TYPE	LIGHTNING SOFTWARE	AP	M H	BUSINESS EDUCATION	8
MATH CONCEPTS	HARTLEY COURSEWARE, INC.	AP	E	MATHEMATICS	5
MATH FACTS/NUMBER & MATH MSTRY	COLORADO CYPHERNETICS	AP	E	MATHEMATICS	6
MATH SEQUENCES	MILLIKEN PUBLISHING COMPANY	AP	E M	MATHEMATICS	2
MATH SKILLS: ELEMENTARY	ENCYCLOPEDIA BRITANNICA	AP	E	MATHEMATICS	6
MATH SKILLS: JUNIOR HIGH	ENCYCLOPEDIA BRITANNICA	AP	M	MATHEMATICS	7
MATH STRATEGY	BEHAVIORAL ENGINEERING	AP	E M	MATHEMATICS	5
MATH STRATEGY: LINEAR SEARCH	CREATIVE PUBLICATIONS, INC.	AP	M	MATHEMATICS	3
MATHEMATICS ASSMT/PRESC 5-7	READER'S DIGEST SERVICES	AP	E M	MATHEMATICS	8
MATHEMATICS DRILL AND PRACTICE	COMPAK, INC.	AP	E M	MATHEMATICS	2
MATHWIZ	MERRITT SOFTWARE	CO	E M	MATHEMATICS	10
METRIC DRILL	HARTLEY COURSEWARE, INC.	AP	E M	MATHEMATICS	5
MILLIKAN	MENTOR SOFTWARE, INC.	AP	H	SCIENCES	4
MIND BENDERS, A3	MIDWEST PUBLICATIONS	AP	E M H	PROBLEM SOLVING	9
MIND BENDERS, B1	MIDWEST PUBLICATIONS	AP	E M H	PROBLEM SOLVING	9
MINUS MISSION	DLM, INC.	AP	E M	MATHEMATICS	4
MIXED NUMBERS	MILTON-BRADLEY	AP	E M	MATHEMATICS	7
MONEY MANAGEMENT ASSESSMENT	MCE, INC.	AP	M H	BASIC LIVING SKILLS	1
MOPTOWN	THE LEARNING COMPANY	AP	E M	MATHEMATICS	7
MORE ALGEBRA: COMP	TYCOM ASSOCIATES	PET	H	MATHEMATICS	4
MORE ALGEBRA: DISC	TYCOM ASSOCIATES	PET	H	MATHEMATICS	4
MORE ALGEBRA: QUAD	TYCOM ASSOCIATES	PET	H	MATHEMATICS	4
MORE ALGEBRA: SIMUL	TYCOM ASSOCIATES	PET	H	MATHEMATICS	4
MORE ALGEBRA: SLOPE	TYCOM ASSOCIATES	PET	H	MATHEMATICS	4
MULTIPLE SKILLS	HARTLEY COURSEWARE, INC.	AP	P	LANGUAGE ARTS	6
MY FIRST ALPHABET	ATARI, INC.	AT	P	SCHOOL READINESS	4
NEWTON	CONDUIT	AP	H	SCIENCES	4
NOUNS/PRONOUNS	HARTLEY COURSEWARE, INC.	AP	E	LANGUAGE ARTS	5
NUMBER BLAST	ATARI PROGRAM EXCHANGE	AT	E M	MATHEMATICS	4
NUMBER WORDS, LEVEL 1	HARTLEY COURSEWARE, INC.	AP	E	MATHEMATICS	6
NUMBER WORDS, LEVEL 2	HARTLEY COURSEWARE, INC.	AP	E	MATHEMATICS	6
NUMERIC DATA ENTRY PRACTICE	RADIO SHACK EDUCATION DIVISION	RS	H	BUSINESS EDUCATION	4
ODELL LAKE	MECC	AP	E M	SCIENCES	2
ODIN	ODESTA	AP	E M H	PROBLEM SOLVING	6
OUR WEIRD & WACKY WORLD: COMP	EDUCATIONAL ACTIVITIES, INC.	AP	E	LANGUAGE ARTS	6
OUR WEIRD & WACKY WORLD: RD6	EDUCATIONAL ACTIVITIES, INC.	AP	E	LANGUAGE ARTS	6
PERSONAL GRAPHICS	LITTLE, BROWN & CO.	AP	H	COMPUTER SCIENCE	9
PHONET	TIES	AP	E	LANGUAGE ARTS	6
PHYSICS: ELEMENTARY MECHANICS	CONTROL DATA PUBLISHING CO.	AP	H	SCIENCES	9
PIK-PEK-PUT	DATA COMMAND	AP	E M	LANGUAGE ARTS	9
POISON PROOF YOUR HOME	MCE, INC.	AP	M H	BASIC LIVING SKILLS	1
PRECISION TIMER	VERNIER SOFTWARE	AP	H	SCIENCES	7
PRESCRIPTIVE MATH DRILL	HARTLEY COURSEWARE, INC.	AP	E M	MATHEMATICS	6
PRESIDENT ELECT	STRATEGIC SIMULATIONS, INC.	AP	M H	SOCIAL STUDIES	8
PUNCTUATION SKILLS: COMMAS	MILTON-BRADLEY	AP	E M	LANGUAGE ARTS	10
PUNCTUATION SKILLS: END MARKS	MILTON-BRADLEY	AP	E M	LANGUAGE ARTS	10
RAINBOW GRAPHICS	BLUE HERRON SOFTWARE	AP	M H	COMPUTER SCIENCE	10
READ AND SOLVE MATH PROBLEMS	EDUCATIONAL ACTIVITIES, INC.	AP	E	MATHEMATICS	8
READING FLIGHT	SCOTT, FORESMAN AND COMPANY	TI	E	LANGUAGE ARTS	7
READING RALLY	SCOTT, FORESMAN AND COMPANY	TI	E	LANGUAGE ARTS	7
READING ROUNDUP	SCOTT, FORESMAN AND COMPANY	TI	E	LANGUAGE ARTS	7

TITLE	PRODUCER	HRD	LEVEL	SUBJECT	SET
RHYMES AND RIDDLES	SPINNAKER SOFTWARE	AP	P	LANGUAGE ARTS	8
RIDDLE ME THIS	DATA COMMAND	AP	E M	LANGUAGE ARTS	8
ROCKY'S BOOTS	THE LEARNING COMPANY	AP	E M H	SCIENCES	6
ROOTS/AFFIXES	HARTLEY COURSEWARE, INC.	AP	E M	LANGUAGE ARTS	5
SENTENCE DIAGRAMMING	AVANT-GARDE CREATIONS	AP	M H	LANGUAGE ARTS	4
SENTENCES	MICRO POWER & LIGHT CO.	AP	M H	LANGUAGE ARTS	4
SIMS	TIES	AP	E	LANGUAGE ARTS	6
SOCIAL STUDIES, VOLUME 2	MECC	AP	M H	SOCIAL STUDIES	8
SPANISH VOCABULARY BUILDER	CONTROL DATA PUBLISHING CO.	AP	M H	LANGUAGES	9
SPECIAL NEEDS VOLUME 1: SPLLNG	MECC	AP	E	LANGUAGE ARTS	9
SPEED READER	DAVIDSON AND ASSOCIATES	AP	M H	LANGUAGE ARTS	5
SPELLING STRATEGY	BEHAVIORAL ENGINEERING	AP	E M	LANGUAGE ARTS	5
SPELLING WIZ	DLM, INC.	AP	E	LANGUAGE ARTS	10
SPORTS STATS	TIES	AP	M H	PHYSICAL EDUCATION	9
STICKYBEAR NUMBERS	XEROX EDUCATION PUBLICATIONS	AP	P	MATHEMATICS	9
STORY MACHINE	SPINNAKER SOFTWARE	AP	P	LANGUAGE ARTS	8
SUBTRACTING MIXED FRACTIONS	MICROCOMPUTER WORKSHOPS	AP	E M	MATHEMATICS	10
TANK TACTICS	DATA COMMAND	AP	E M H	LANGUAGE ARTS	9
TEASERS BY TOBBS	SUNBURST COMMUNICATIONS	AP	E M	MATHEMATICS	8
TENNIS ANYONE?	DATA COMMAND	AP	E M	LANGUAGE ARTS	8
TEST BANK	ADVANCED TECHNOLOGY APPLIC.	RS	E M H	TESTING	5
THE ANTONYM GAME	J & S SOFTWARE	AP	H	LANGUAGE ARTS	10
THE ARITHMETIC CLASSROOM: DEC	STERLING SWIFT	AP	E M	MATHEMATICS	5
THE ARITHMETIC CLASSROOM: FRAC	STERLING SWIFT	AP	E M	MATHEMATICS	5
THE ATOM	MICRO-ED, INC.	AP	M	SCIENCES	6
THE DECISION SHOP	THE CHILDREN'S MUSEUM OF IND.	AP	E M	SOCIAL STUDIES	7
THE EXPLORING AMERICA SERIES	AQUARIUS	AP	M H	SOCIAL STUDIES	9
THE FACTORY	SUNBURST COMMUNICATIONS	AT	E M H	PROBLEM SOLVING	9
THE GERMAN/RUSSIAN HANGMAN	GEORGE EARL	AP	H	LANGUAGES	9
THE MARKET PLACE	MECC	AT	E M	SOCIAL STUDIES	7
THE MONEY MANAGER	STERLING SWIFT	AP	H	BUSINESS EDUCATION	10
THE PROGRAMMABLE CUBE	METACOMET SOFTWARE	AP	H	COMPUTER SCIENCE	6
THE SHELL GAMES	APPLE COMPUTER, INC.	AP	E M H	TEACHER UTILITY	1
THE SPANISH HANGMAN	GEORGE EARL	AP	M H	LANGUAGES	4
THE WESTING GAME	SUNBURST COMMUNICATIONS	AP	M	LANGUAGE ARTS	8
THE WIZARD	PROGRAMS UNLIMITED	RS	M H	TEACHER UTILITY	3
THREE MILE ISLAND	MUSE SOFTWARE	AP	H	SCIENCES	6
TITRATION	MENTOR SOFTWARE, INC.	AP	H	SCIENCES	4
TOUCH TYPING	COVE VIEW PRESS SOFTWARE	RS	M H	BUSINESS EDUCATION	4
TYPING TUTOR	MICROSOFT CONSUMER PRODUCTS	AP	M H	BUSINESS EDUCATION	2
VERB VIPER	DLM, INC.	AP	E	LANGUAGE ARTS	9
VERBS	HARTLEY COURSEWARE, INC.	AP	E	LANGUAGE ARTS	5
VOCABULARY DOLCH	HARTLEY COURSEWARE, INC.	AP	P	LANGUAGE ARTS	5
VOCABULARY I, PLURALS, SENT.	COLORADO CYPHERNETICS	AP	E M	LANGUAGE ARTS	10
VOCABULARY SKILLS: CONTEXT CLU	MILTON-BRADLEY	AP	M	LANGUAGE ARTS	8
VOCABULARY SKILLS: PREF,SUF,RT	MILTON-BRADLEY	AP	M	LANGUAGE ARTS	8
VOLCANOES	EARTHWARE COMPUTER SERVICES	AP	H	SCIENCES	3
VOWELS	HARTLEY COURSEWARE, INC.	AP	E	LANGUAGE ARTS	6
WHO, WHAT, WHERE, WHEN	HARTLEY COURSEWARE, INC.	AP	E	LANGUAGE ARTS	6
WHOLE NUMBERS PRACTICE	CONTROL DATA PUBLISHING CO.	AP	E M	MATHEMATICS	9
WORD FAMILIES	HARTLEY COURSEWARE, INC.	AP	P	LANGUAGE ARTS	5
WORD GAMES	MECC	AT	E	LANGUAGE ARTS	7
WORD INVASION	DLM, INC.	AP	E M	LANGUAGE ARTS	9
WORD MASTER	DLM, INC.	AP	M	LANGUAGE ARTS	8
WORD MEMORY PROGRAM	I/CT, INC.	AP	P	LANGUAGE ARTS	8

MICROSIFT EVALUATIONS: TITLE

TITLE	PRODUCER	HRD	LEVEL	SUBJECT	SET
WORD RADAR	DLM, INC.	AP	P	LANGUAGE ARTS	10
WORD SEARCH	HARTLEY COURSEWARE, INC.	AP	E	LANGUAGE ARTS	5
WORDMAN	DLM, INC.	AP	E	LANGUAGE ARTS	9
WORDWATCH	INSTANT SOFTWARE, INC.	RS	M	LANGUAGE ARTS	4
WORDWRIGHT	ENCYCLOPEDIA BRITANNICA	AP	E M H	LANGUAGE ARTS	7
YOU CAN BANK ON IT	MCE, INC.	AP	M H	BASIC LIVING SKILLS	1